

# AMERICAN BEE JOURNAL

DEVOTED EXCLUSIVELY  
TO THE INTERESTS  
OF HONEY-PRODUCERS

ESTABLISHED 1861  
THE OLDEST BEE-PAPER IN AMERICA

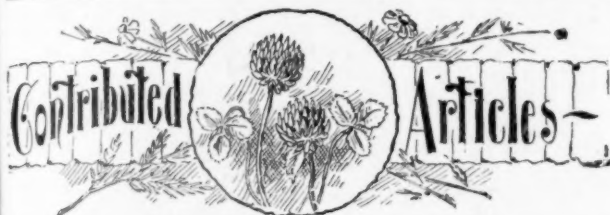
Published Weekly, at \$1.00 per annum.

Sample Copy sent on Application.

36th Year.

CHICAGO, ILL., FEB. 20, 1896.

No. 8.



## Building Worker-Combs vs. Foundation.

BY G. M. DOOLITTLE.

A correspondent writes that he has seen somewhere in the bee-papers that I secure worker-combs by having them built in nucleus colonies, instead of buying comb foundation, and that he wishes I would tell something about it in the American Bee Journal, as he feels too poor to buy much foundation, as his bees have done little toward furnishing him anything to buy it with during the past three years.

As I have hundreds of nice, straight worker-combs, built in small colonies during the past, I will willingly give all the help I can, for I often think I can thus secure combs at a cost not exceeding one-half what foundation would cost me.

The colonies used in building combs are generally those left after uniting two weak colonies, just before the honey harvest, so as to make one strong one from the two, this strong one giving a good yield of honey, while the part left from the one giving strength to the united colony, is that which builds the combs.

In uniting, all the bees from hive No. 1 are taken to No. 2, except those which adhere to the frame which the queen is on and the sides of the hive, so that hive No. 1 only contains one comb of brood, the queen, and the bees which adhere to the hive. An empty comb is now inserted by the side of the only comb left, and a division-board adjusted to make a hive holding just two combs. When the bees from the united colony fly, the old bees taken on the frames of comb placed in No. 2 return to No. 1, so that we have the two combs there, well crowded with bees. This causes the queen to lay rapidly in the empty comb given, which will be filled with eggs in two or three days, at which time I put an empty frame between the two full ones, as this little colony has no desire to swarm—or for anything else, save to increase its number of worker-bees as fast as possible—they go right to work and fill this frame with as nice and straight worker-combs as ever was made where foundation is used; and this, too, when colonies having no such desire, will be doing comparatively nothing at gathering honey, or anything else.

In about a week this comb is completed, when it is taken out and given to some colony that needs just such a frame of comb and brood, while another empty frame is given which is again taken out when filled, and thus we keep on to the end of the season, when several of these little colonies are united, so as to form one good colony for winter. The extra queens are sold or used in replacing poor ones.

In this way I have gotten as high as 15 beautiful worker-combs built by one of these little colonies in one season, and all done by the bees which hatched from the two combs they had to start with.

Another way to make this little colony profitable is to use it as above till I get ready to take away the first comb built,

when, instead of taking it away I spread the three combs apart and put two empty frames between them. In about ten days these will be filled, when two more empty frames are put in, which will usually be filled with worker-comb, but not always; for by this time they begin to get strong, when some drone-comb may be built in the lower corners. When they will not build worker-comb any longer, the hive is filled up with worker-comb built by other little colonies, so that in the fall I have a nice colony for wintering.

If I do not wish to build the colony up for wintering as above, or it gets ahead too fast, so it will be likely to swarm and thus spoil my plans, I take all but one of its combs away from it, being sure that the queen is left with the bees, also leaving a comb that is completely filled with young brood, so the bees will feel their need of looking out for worker-brood again, when I insert four empty frames—two on either side of the comb of brood left—when I get four nice combs again. The secret of securing worker-comb built is in placing the bees in such shape that they will have no desire to swarm, but, on the contrary, will feel poor, and look ahead to the supplying of a force of worker-bees that they may be able to gather sustenance for winter.

As the united colony will give far more comb honey than would either or both of the colonies if left separate, it will be seen that we have made a gain in honey by this mode of procedure, and the combs we get are entire gain. Had we wished to work for extracted honey instead of comb honey, we probably could have gotten more honey by allowing the two colonies to have remained separate, still, in this case it would be doubtful whether the two separate would have accumulated much more than the united colony.

There is now and then a colony which will think they need some drone-comb under the circumstances given by the last plan, and if it is found that they are building drone-comb in either of the four frames, take away their frame of brood and put a comb containing more or less drone-brood, in its place, when they will cease to build anything but worker-comb.

In these days when we are buying dollars, it is necessary that we take advantage of all the little kinks in bee-culture which will save us anything, for the times are against the producers of wealth, and in favor of our money-kings. It takes 10 pounds of honey now to buy a dollar, while 3½ pounds of the same honey would buy the same dollar in the early 70's. Therefore it behooves us to make the best possible use of the dollars we buy, and not spend them for anything which we can produce at a less cost than the purchase price would be.

Borodino, N. Y.



## Keeping Empty Combs from Moths.

BY C. DAVENPORT.

Some time ago Mr. Demaree wanted different ones to give their plan of keeping empty combs from being damaged by moth-worms. I will describe the way I do this, and since I have followed this plan it has been but very little trouble for me to prevent moths from damaging empty combs, or those filled or partly filled with honey, in spite of the fact that moths are very bad and destructive during warm weather in this locality. To me, moths seem to have very strange and mysterious ways, and I don't know but those we have here are different from those in other places, for I believe it has often been said that if empty combs that are free of moth-eggs, as well as moths, are put into a room or box in which

the moth-miller cannot go, they will not be damaged by moths. In this locality, some seasons, such combs so placed would be badly damaged by moth-worms. Combs seem to attract the moth-miller, and where there are many combs in a tight room or box, I believe if the miller cannot get at them she will often lay her eggs in cracks or crevices in the box or building where the combs are, and after the eggs hatch, instinct or something else, causes the moth-worm to crawl through to where the combs are. A young moth-worm can go through a very small hole—so small, in fact, that I believe it would be impossible to make a box out of wood that could keep them out.

Early in the spring, long before any moth-millers were around, I have taken combs that had been in a building all winter where the temperature would be nearly, if not quite, as low as it would be out-doors—and that means cold enough to kill any moth-worms; for in this locality we always have some very cold weather, and generally every winter one or two spells when the temperature will be down to nearly if not quite 40° below zero for two or three days—I have put combs, thus exposed, into tight boxes which had also been exposed all winter, and nailed covers on, and fixed them so that no moth-miller could possibly get inside, yet I have had combs so placed badly damaged by moths.

When I have empty combs to preserve, I also have empty hives, and I always wanted some plan by which I could keep the combs in the hives without their being damaged by moths, and without the trouble and work of sulphuring them every ten days or so. I finally hit upon a plan by which this could be done, with practically no work or expense. This will work just as well if the hives are tiered up out-doors—in fact, I prefer to keep the hives containing the empty or filled combs right in the yard where they can be gotten at easily when wanted.

Now all that is necessary to do this, is to get some tarred paper—common tar building-paper, which can be had from almost any hardware store, or lumber yard; this should be cut just the size of the top of the hive, large enough so that it will come out even with the outer edge of the hive all around. With hives that have the entrance cut from them it will be necessary to nail a strip on to close the crack this entrance would cause when the hives are tiered up. With a hive made on the same principle as the dovetailed, all that is necessary to do is to place the combs in the hive-bodies, then take a bottom-board and turn it bottom side up. (The bottom-board is turned wrong side up, so as not to leave an entrance.) Then spread one of these squares of tar paper on the bottom-board, and set the hive on this paper. Then put another paper on top of this hive, and place another hive on, and so on as high as desired; and if on each tier, or tiers, a piece of this tar paper is put under the bottom hive, between each one, also one on top between the cover and top of the last or top hive, the moth-worms will never damage the combs any, even if the joints between the hives do not fit very tight—at least they never have with me. Of course, if there were moths or moth-eggs in the combs before they were so fixed, they would damage the combs.

These squares of tar paper will last for years, and when not in use can be rolled up together, and thus require but little storage-room. The tar paper will cause the combs to smell of tar, and if they contain honey it will cause it to taste tarry, but this is no detriment to brood-combs or to the honey either, if it is to be given to the bees for their own use. On the other hand, in my opinion, it is healthy and good for them. But none of this tar paper should be used around section or any other kind of honey that is intended to be sold or used at home, for it will cause it to taste of tar, and be a great damage to it.

The only way that I know of to keep comb honey—that is, if it is kept in such a place as it should be—from being damaged by moths, is to sulphur it every two weeks or so during warm weather.

If this article is thought to be worth printing, in my next I will give my method of sulphuring and handling comb honey. Southern Minnesota.



### More About Painting Hives, Etc.

BY E. B. THOMAS.

On page 774 (1895), I observe some kind remarks on my letter on page 746, on painting hives, with Dr. Miller's expression of surprise that the general practice of priming should have obtained in spite of the facts I adduce to the contrary. I think the practice can be explained as follows:

Outside, or house-painting, is generally done on vertical or hanging surfaces, and when the weather is warm and

pleasant; the oil generally used is new, light and thin, and made thinner still by the warmth of the day and the surface to be painted. Therefore, in order that the oil may not "run," some paint is put in to give it body, without thought as to the detriment it will be to the permanence of the finished work. When this priming coat is made with finely-ground lead or zinc, it is bad, but not half so bad as when made by stirring into the oil some of the ochreous earths (chiefly yellow ochre) as is so often seen of late years.

If the old oil I have recommended be used, it will have enough body, and even new oil well worked in with the brush is vastly superior to the usual coat of priming.

As to the practical question in the Doctor's second paragraph, I think I may offer a solution satisfactory to those who desire unpainted hives. Most hives made in the North are of white pine—a light, porous wood, so little subject to warping and shrinking that to this day it is considered by most architects as the only suitable wood for the core of veneered hardwood doors used in expensive houses. White pine, however, does not stand exposure to the weather unless thoroughly protected by paint. But of late years cypress has come into use for various purposes. It is not quite so light in weight as white pine. From its solid doors and interior finish can be made of the most exquisite beauty, according to the selection of the wood. It does not shrink or warp any more than white pine, and when exposed unpainted to the weather, lasts indefinitely. Cypress shingles are said to last 50 years, and then succumb only to the action of the rain wearing away the surface of the wood. I have 40,000 of them on my house, and although they have been there nearly five years, none of them are appreciably warped. This wood is odorless, free from knots, and is a good material for the exterior parts of hives. In New York and New England it is slightly more expensive than white pine, but the difference is far more than made up by the saving in paint. Oil all joints and bearings, and underneath bottom-boards. Use galvanized nails, and no part, not even the tops, will require painting—and they may be bequeathed to your children.

While on the subject of material for hives, let me suggest one reason why bees will sometimes refuse to stay in a new hive. Hives made of Southern pine, as is the usage in the South, or of white pine, as in the North, often contain "fat" or resinous pieces, or knots which are of the same character. On a hot day, whether exposed to the sun or not, these resinous parts exude an odor of turpentine so pungent at times that the desertion of the bees may be thus accounted for.

Lynn, N. C.



### Management to Get the Most Honey.

BY JAMES CORMAC.

On page 600 (1895) is an article entitled, "A Different Management of Bees Needed," which was to be followed by this, but circumstances prevented my writing sooner.

The past ten years, in this part of Iowa, have been a continued honey-dearth, so far as white clover is taken into account as a honey-plant, and only those favorably situated near groves containing basswood (linden) can boast of much surplus, and especially those who practice section-honey production.

The flowering of the basswood being of short duration, by the prevailing methods of management a large part of the honey secured by the bees is not secured in the sections; for whenever this flow commenced, the bees became excited to swarming, queen-cells were built as fast as possible, and preparations made to transfer their home. Although sections were on and work commenced therein, at least two-thirds of the colonies would be in the air within a few days, and several at the same time, necessitating a great deal of lively and hard work in catching swarms and moving hives, changing the supers, etc. Following the usual methods of hiving the swarms, I soon found that I had more bees and less honey, than from the colonies that did not swarm at that time, although careful observation convinced me that colonies not swarming, although as strong or stronger, did not secure as much honey as those that were allowed to swarm, but did not place as much in the sections during the flow.

I studied on methods to remedy such a condition, and secure almost all the honey the bees gathered, at the same time permit swarming, because I believe that under this excitement more work can be forced in the sections than when under placid conditions. To prepare and adopt the method to be set forth, and to save time and labor, should you have many colonies or only a few, it is best to clip the queens' wings, although most apiarists know the best time for this is



during fruit-bloom. By having the queens clipped, five minutes is ample time to attend to each colony, as the swarms will return of their own accord, that is, *early or prime swarms*. It is possible that under this management a second issue of the swarm may take place, but not more frequently than will be the case of swarms leaving the hive under usual methods.

Before I give the method, allow me to say here, that I am convinced that bees allowed to swarm can be so managed as to have section comb built out faster than would be done in a colony in a placid or normal condition; because, under the excitement of swarming, wax-scales are secreted more abundantly than under any other conditions, as instinct or reason causes the bees to secrete wax to be used in building up a future home, and these conditions can be used by the apiarist to greatly facilitate comb-building in the sections. This statement does not so much concern those who extract as those who produce comb honey only. It is for the latter class that this is written.

Whenever your bees swarm secure the queen. Screen-wire wound around a round piece of wood or corn-cob is about the most convenient, both for lightness, size, etc., as also a piece can be used as a stopper. A 4-inch square piece of screen-wire from the edge of the web is safest, as no raveled ends are in the way to pierce the queen.

Lay the queen in this cage on the bottom-board in front of the hive from which the swarm issued; open the hive and remove all combs on which are closed cells; bruise all others, place the combs with cells in the rear of the hive, or in a comb-box with adhering bees; push together the remaining combs, fill the empty space outside of the division-board with any material most handy. Close the hive, returning the supers if on, or put on sections. The swarm returns; release the queen, and the conditions are most favorable for comb-building and honey depositing. No honey to be wasted in building comb in the brood-nest, and as honey, pollen and brood fills the hive, all work will be thrown into the sections.

The frames taken out can be put into nucleus hives, or, if you have none, put them into any hive partitioned off to receive them. New frames can be given these as they need them. You can make new colonies with them, or unite when the honey-flow ceases. In uniting, cover the hive you wish to preserve with screen-wire, and set the other on above this; in a day or two unite—harmony all around.

This method will yield you more honey than to throw the bees into a condition where they waste their opportunity of securing a large surplus by building for themselves new brood-combs, as in a short honey-flow work is divided between the brood-nest and the sections, and is too short to finish either.

I hope this will answer Dr. Miller's criticism found on page 632 (1895).

On page 585 (1895) Adrian Getaz writes: "If I could prevent swarming and keep up brood-rearing, and thereby the strength of the colony during the honey-flow, I should get considerable surplus."

On page 545, J. E. Taylor says: "I knew one strong colony was worth two weak ones. I moved hive No. 1 within a foot of No. 2, then moved No. 2 away about 20 feet, and taking each frame I shook off the bees on the alighting-board of No. 1, smoked them, and they entered; also returning bees from both colonies. Before finishing the job, a swarm issued from another hive; I hived them in No. 2, and filled with brood-combs (brood and honey); result, a large surplus from No. 2."

On page 526, R. V. Sauer writes: "I work my bees two, three, and even four stories high, trying to keep them from swarming as much as possible, and only have such swarms as settle together while swarming, or such as I do not know from which hive they came. All other single swarms I put back from whence they came."

Also see an article on page 648 (1895), from Eugene Secor, which is too long to copy.

On page 573 (1895), is a quotation from the American Bee-Keeper, from the pen of G. M. Doolittle, viz.: "I have been a careful observer for 25 years, and find that when bees are at work best in the sections there is little honey in the brood-chamber during the white honey harvest. It would be a doubtful expedient to use the extractor on combs below, if one expects to secure a large yield of comb honey. If honey accumulates in the combs before the bees are fairly started in the sections, have no fears the bees will carry it up and make room for the queen."

On page 576 (1895) E. Tarr writes that as he has bees enough he hives two or three swarms together and gets large yields.

On page 890 of Gleanings, from the top down 20 lines, therein is written: "It is almost impossible to get even rea-

sonable work in sections with a colony that has not swarmed, while the one that swarms will do almost nothing in the section."—R. C. Alken, Loveland, Colo. Why, the mother colony is decimated in bees, and swarming accelerates their activity.

I think I have supported this question by sufficient quotations to bolster it on all sides—that if no swarming takes place honey is more surely stored; that swarming is conducive to increased activity; that swarms returned to the mother colony give large yields; and the fact of being so much less trouble in taking care of the bees, as one can care for several swarms in the air in less time than one caught in a swarming box or basket.

Eight days of actual gathering during basswood bloom, and two days of rain with no work done, bees treated as above, and also the prevailing methods, the bees that returned gave over two supers of 24 1½-inch sections filled, and not a completed section in the others. Our fall flow was nothing—plenty of bloom, but no nectar. As one can build up during fruit-bloom by putting surplus hives on the brood-nest, and strengthen the colony, it is not necessary to combine colonies, making them as strong as an 8-frame hive can contain; and when the time arrives for honey-secretion from whatever source it is to be obtained, place the surplus case over the super with an escape over the super, and in the morning the super can be taken off minus the bees. You then have the combs to supply nuclei, if they should require it, until a later flow comes, and the hatched brood is old enough to go to the field.



### Nectar and Its Secretion.

BY W. H. MORSE.

What is nectar, and what are the conditions necessary to a copious supply of it?

In the first place I want to say that the previous year has very little to do with supplying the nectar for the year following. (I can hear scores say that won't do, but it is a fact, nevertheless.) Let us take, for instance, a small apple-tree in the first year of its existence, and upon careful investigation we shall find that as the sap rises in the spring in this small tree, and, in fact, all trees, it is little more than water impregnated with a small amount of fertilizer held in solution by the surrounding moisture, but when it rises in the spring, and reaches the leaf buds and unfolds them, then the laboratory work begins, the sun's rays of light act on the wonderful organism of the leaf, and the young plant begins to receive from them the prepared sap which goes to build up the plant in general, and stores sufficient chemically-prepared tissue to mature its buds for next year; and so it goes on till it acquires sufficient age to make the peculiar fermentation necessary to produce fruit-buds, and the little parts of the flower are in an embryo state, lying dormant through the winter, but as spring advances the flowers open up, and then the laboratory work is so wonderful—all man's achievements seem puny in the contemplation of this little flower. The sun's rays of light are the great agent in the work. If any one doubts it, put a red-flowering plant in total darkness as soon as its flower-buds can be seen, and give it heat and water, and its flowers and leaves will be white, or almost so. So we see that the sun is the base of the work, marking the petals with such beautiful tints of color, and forming the essential oils which give the flower its perfume, and adds vigor to the pistil and stamens, and to the nectary, which is the part of the flower that is of interest to us as bee-keepers.

Now, I have tried to give the preceding to back up the statement I made, that the preceding year has nothing to do with filling this nectary with nectar. True, it builds it in embryo, but does nothing more. No, friends, it is when the atmosphere is favorable that plant life seems to take on that excessively luxurious growth that delights all lovers of Nature, that the flowers are changing the sap into nectar, depositing it into the nectary by such wonderful process that man cannot imitate it even if he had thousands of years to try. In fact, it would be almost like getting a strawberry from a rosebush, or *vice versa*. I used to think it possible to work that way, but in actual practice I struck snags on all sides, and had to give it up.

But some plants have the power of producing nectar under unfavorable circumstances, such as sweet clover and many others. Then there are plants which it seems take spells and produce an excessive amount of nectar one year, and not any for several years following—tropical plants grown in greenhouses are especially so. I remember a peculiar case of this kind; it was with a plant named "Hoyacarnosa." It

was planted out in a large conservatory, and twined itself to a trellis suspended to the roof, and the year in question it flowered excessively, and secreted so much nectar that it dropped from the flowers, soiling everything underneath them; and the same flowers produced nectar till they perished, as nearly as I can recollect it, six or seven days from the time they began to produce nectar. Now this plant was handled the same in every way for four years afterwards, and if I had not seen what I have described I would have said that the flowers were destitute of any organ to hold nectar, let alone produce any. What should cause it is a knotty point, but such is the case with all nectar-producing plants, which all old bee-keepers know.

Florence, Nebr.



### Wintering Bees in New Brunswick.

BY FRANK SHUTE.

In New Brunswick the bees are usually wintered in the cellar, as the winter is dry and cold, with very few warm spells from Dec. 1 to April 1.

About Sept. 1 I examine my hives to see that each has a laying queen, and about 25 pounds of sealed stores. If they lack either I supply them with what is required as soon as possible, and generally I make it a point to feed each colony 5 or 10 pounds of syrup about this time, so that it will rear plenty of young bees for winter. In a fortnight I take off the covers and place on each hive a porous cover that I use from Sept. 15 to May 1, which may be made as follows:

On the bottom of a super or frame of wood the same size as the hive, and about 5 inches high, place a sheet of burlap or any coarsely woven goods, for a bottom, and have it held in place by nailing strips of  $\frac{1}{4}$ -inch stuff all the way around on the bottom edge of this frame, so that if there was no sag in the burlap bottom a  $\frac{1}{4}$ -inch bee-space would be left over the combs. The box thus formed is to be filled with packing, and in order to keep the burlap bottom from sagging, nail two strips lengthwise inside of the box about 2 inches each side of middle and up from the burlap about  $\frac{1}{2}$  inch. Then before putting in the packing, the burlap should be fastened to these strips by needle and thread, or by tacks.

I fill the box thus formed with corkdust, such as grapes are packed in, which I get free from fruit dealers, and which is very light, porous, and warm. Around the hive I sometimes place a winter-case, and the space left between it and the hive I fill with old newspapers folded in the usual way, which I consider is a very clean and convenient form of packing, and which is practically wind-proof.

Then my bees are all right until the ground freezes, and on some fine day, about Nov. 1, I take the winter case off and carry each hive to the cellar, where I place it on two strips in such a way that one end of the hive is about 2 inches higher than the other, thus forming an entrance 2 inches high, and the whole width of the hive, which allows ample ventilation underneath the cluster. Before placing the hive on the strips I place three or four sheets of paper between them so that when dead bees, etc., drop from the cluster, they may be quietly removed by simply pulling out the sheets of paper as each becomes soiled. I place the back end of the hive higher than the front, as there is usually more honey at the back.

When in the cellar I remove the hive-cover proper, which, of course, should be placed on top of the porous cover when the bees are out-of-doors, in order to protect them from rain; but if the packing becomes damp the cover should be raised a little to allow the moisture to escape.

If mice trouble the bees any while in the cellar, have a screen of wire netting, 3 or 4 meshes to the inch, which may be hooked in place at the entrance. Then if the thermometer registers about 45°, my bees will be in first-class condition when I put them out in the spring, which usually is about the middle of April.

Fredericton, N. B.

**A New Binder** for holding a year's numbers of the American Bee Journal, we propose to mail, postpaid, to every subscriber who sends us 15 cents. It is called "The Wood Binder," is patented, and is an entirely new and very simple arrangement. Full printed directions accompany each Binder. Every reader should get it, and preserve the copies of the Bee Journal as fast as they are received. Why not begin with Jan. 1 to save them? They are invaluable for reference, and at the low price of the Binder you can afford to get it yearly.

If any one desires two of the Binders—one for 1895 and one for 1896—send 25 cents, and they will be mailed to you.

See "Bee-Keeper's Guide" offer on page 125.

## CONVENTION PROCEEDINGS

Report of the Illinois State Convention Held at Chicago, Jan. 9 and 10, 1896.

REPORTED BY ERNEST R. ROOT.

(Continued from page 103.)

### COMB HONEY PRODUCTION VS. EXTRACTED.

President—I should like to ask for a show of the hands of those who think they can produce more extracted than comb.

Quite a number held up their hands. When the reverse of the question was put, no one responded.

President—Now, I should like to know *why* more extracted can be produced than comb.

Mr. Baldridge—Bees can go to work younger when we are running for extracted honey. If two-thirds of the combs are capped over, we can extract. In the production of comb honey we have to be particular to have *all* the cells capped.

President—How many make a practice of using the sections over again?

A show of hands indicated that the majority did so.

President—How many throw them away?

No hands were raised.

### UNFINISHED SECTIONS.

President—We will assume that we have taken off our comb honey, and that we have a lot of unfinished sections. Now, what shall we do with them?

Mr. Baldridge—Extract, and put in a hive under the brood-chamber, and clean them up, and then level them down.

Mr. Draper—It does not pay to extract.

President—What do you do, then?

Mr. Draper—What is fit for chunk honey at all, I cut out and sell as such. The rest I use for feeding up in the spring.

Mr. Baldridge—The extracting of the unfinished sections can be done very rapidly if you have the right kind of extractor. The Cowan answers very nicely for this purpose.

President—Mr. Draper, why do you feed in preference to extracting?

Mr. Draper—Because it is more easily done.

Mr. Wheeler—It is a good deal of trouble to get the bees to take honey out of the sections.

Mr. Baldridge—It is no trouble if you scratch theappings of the combs with a knife. The bees will repair the damage, and in so doing take out the honey.

President—But some bee-keepers would object to going to the trouble of scratching over the surfaces of all their unfinished sections.

Mr. Draper—If bees won't take the honey out when over the hives, scatter them out-doors among the hives. They will be emptied then in short order, I tell you, without "scratching."

President—My method is to put the unfinished sections in hives stacked up, one story above another. These are what I call "piles." These are made perfectly bee-proof except at the bottom; and the entrances are contracted so as to let in only one bee at a time. If we don't have a small entrance, the bees will rush in and tear the surface of the combs too much. Mr. B. Taylor, I believe, has his sections scattered all over the yard so the bees can get at the whole business at once. Then he says the bees don't tear the sections.

Mr. Finch—That is just the point. If you put out only a little honey the bees will pounce on it and tear the comb; but if you put out a lot, and scatter it, no manipulation will take place.

President—If you have only a few unfinished sections, use the stacked-up hive and a small entrance; but if you have a lot, use Taylor's method of scattering through the apiary.

### RUNNING AN OUT-APIARY.

Question—"What is the best method of running an out-apiary?"

Mr. Wheeler—My method for prevention of swarming in out-apiaries is as follows: As a preliminary, let me say, hav-



ing 300 to 400 colonies, and doing the manipulating alone, for fear the bees will get away from me before I get all around, I clip all queens' wings. Sometimes after I get them fixed for comb honey they try to abscond for a day or two, hence the necessity of clipping. For comb honey, I put on supers of empty sections at the beginning of the flow of honey. When the desire to swarm appears, I take all combs containing brood from each colony, replacing such combs with empty frames with starters. The queen is left in the old colony with the supers and the empty frames. The combs of wood are put into an empty hive by the side of the old one, enough bees being left on this brood to care for it. These bees soon have a young queen, and can then be treated as any other colony, or, if preferred, they may be returned to the old colony from which they were taken earlier, after the brood has hatched. For extracted honey, I simply place above the brood-chamber empty combs faster than the bees can fill them, not disturbing queen or brood.

Mr. Finch—I should like to ask Mr. Draper whether he has made the out-apiary business a financial success?

Mr. Draper—The year before the North American Association met in Keokuk I made some money, but I have not made any since. If I had a mind to follow up the good localities, as Mr. Walker does, I might still be making money at it; but I have too many irons in the fire.

#### OLD SECTIONS FILLED WITH COMB.

Question.—“What shall we do with old sections filled with comb?”

Mr. Stewart—Burn them.

Mr. Finch—Cut out the comb and burn the sections. There is no use of burning up wax at any time. Too much good money is represented in it.

Mr. Baldrige—Trim down the comb with a hot knife, or with the comb-leveler, as Mr. B. Taylor does. Bees do not take kindly to the soiled and thickened edges of the combs of unfinished sections as they are left the previous season. I have found it to be a great advantage to level down these combs and take off the soiled edges. I practiced this before Mr. Taylor ever spoke of it in the bee-papers.

Dr. Miller—Yes, and it is an advantage to take off this dirty edge, because it would spoil the appearance of the comb honey when finished by the bees.

Mr. Schrier—I have been cutting down combs of unfinished sections in this way, and find it an advantage. Bees do not like the old, dirty edges to start on anew.

#### A CHICAGO HONEY EXCHANGE.

Question.—“Is it desirable to organize a honey-producers' exchange in Chicago, something as they are doing in California at the present time?”

Mr. Newman—As General Manager of the Bee-Keepers' Union I have been asked to establish something of the sort for Chicago. I would have one for the whole United States. A honey-depot in some large city, and plenty of money back of it, would be an advantage. It may be a good idea for this and other conventions to study on this matter some.

Mr. Thompson—The right party back of it ought to be a bee-keeper.

Mr. York—I get a good many letters asking if the American Bee Journal cannot help in the disposition of honey. Something in the way of a honey-producers' exchange would be a good thing for Chicago. I am sorry to say there is but one Chicago firm, so far as I know, to whom I can conscientiously recommend bee-keepers to ship their honey. I find there has been handled, in this city, since the latter part of August, or early part of September, 60 carloads of honey, with an average of about 10 tons to a car. One firm has handled about 20 carloads, or 200 tons, and has handled three carloads in one day. One trouble with the market is the rushing in of too much at a time. A carload of honey goes a good ways unless a dealer has a good trade worked up in advance; and when several carloads come in at one time, there is great danger of running down the prices. While Chicago is a good honey market, there is often danger of overdoing even a good thing. There should be a honey-depot in every large city, to which carloads of honey could be shipped as fast as required, then by careful distribution there would be no danger of overloading the market.

Mr. Baldrige—Is it not true that the California Honey-Producers' Exchange would be glad to join with any other body or organization of bee-keepers?

Mr. Newman—I believe Mr. Baldrige is correct. The suggestion I made for a honey-depot I think is the best solution. If we had such a one in Chicago, or any other point, that could make liberal advances on honey, it would be a great help to bee-keepers. The trouble in shipping to so many

different firms is the competition that is brought about. One large, central depot that could handle all the honey could realize better prices.

Mr. York—There is no doubt that a honey exchange would be a great aid to securing and sustaining uniform and better prices for honey. For instance, a new firm begins to handle honey; they quote prices away up in G, get overloaded and somewhat scared, then get rid of the honey in their hands at just about what is offered them by competing dealers. This is no supposed case, but one that I know occurred. Think of fine comb honey selling here in Chicago at 8 cents per pound, and white extracted at 4 cents! It is outrageous. No wonder some reliable dealers prefer to buy of certain other crooked dealers, when they can see the honey, and get it at less price than they would have to pay the producers if they bought it direct. Another thing: The bee-papers can do much to help weed out swindling commission-men, by publishing their crooked transactions. But we editors have to be very careful in such matters, and if accidentally we should be threatened with a libel suit, we would expect to be backed up by our readers and bee-keepers everywhere when thus fighting their battles for them. I should expect the Bee-Keepers' Union to help, too—it could not do better service than to help put honey-buying scoundrels and swindlers behind the bars, where they belong. I believe it would be a good thing if the whole honey-commission business could be dropped, and the honey exchange or depot take its place. I should like to see the latter idea tried, at any rate.

Mr. Newman—Bee-keepers should not keep still. The bee-journals should be notified, and then the bee-keepers should stand by the bee-papers. The Bee-Keepers' Union can doubtless assist; but it was created for one specific object—to defend the rights of bee-keepers. It can and will assist in exposing villainy, and will help to win the case.

Mr. Root—That is just it. Bee-keepers should let the bee-papers know in regard to these unsatisfactory deals. A little suggestion coming from a publisher of a bee-paper will oftentimes have great weight with a commission-house, as I know from some experience I have had.

[Continued next week.]

## Questions AND Answers

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

### Bee-Killing Insects—Managing Swarming—Detecting Adulterated Honey.

DR. MILLER:—Permit me to thank you for your kindness in answering my questions in the Bee Journal, and to ask some more. While your answers were not quite so encouraging as I had hoped they would be, still I am persuaded they are as near the truth as any one could make them. I do not think I could afterwards accuse you of underrating the disadvantages of the business. I am still determined, however, to try my hand this year at a few colonies. I think time can be found to take care of them, and all I learn about the business will be so much clear gain.

1. Is there any serious trouble in this part of the country from bee-killing insects or birds?

2. What method would you advise for handling swarms by a man who is only home Sundays during the daytime? Is clipping of the queen's wing practiced much?

3. Are there any kind of bees less likely to swarm than others?

4. Is there a simple method by which a greenhorn can tell adulterated extracted honey? I recently bought some warranted pure, which is either manufactured, or which was stored by bees that had lost the sense of taste. It is not fit to eat.

INQUIRER.

ANSWERS.—1. No, you must go South for anything of that kind.

2. I think I'll hardly attempt a direct answer to that question, for so much depends upon circumstances that you

will probably be safer to trust to your own judgment after you are a little more acquainted with the text-books that I know you are studying, than to trust to my advice. I don't know whether clippers or non-clippers are in the majority among those who make bee-keeping a specialty, but there are many who could not easily be induced to do without clipping. Situated as you are, I wouldn't think of getting along without it.

I don't suppose you mean that Sunday is the only day in the week in which you have daylight at home, for in that case I don't believe you'd want to keep bees, but I suppose you mean that you are from home through the part of the day that swarms would be sure to issue. One way to do is to have queen-traps at the entrance to hives, and then when a swarm issues you would find the queen in the trap in the evening or the next morning.

3. Yes, there's a good deal of difference. Carniolans have perhaps the worst reputation as swarmers. I don't know that there's such a great difference between Italians and blacks, but Doolittle thinks there's much difference among bees of the same race. He says he hasn't one swarm now where he formerly had ten, and evidently thinks this has resulted from the fact that his queens have been reared, not from swarming colonies, but over a queen-excluder on a colony with a laying queen and with no thought of swarming.

4. I'm not sure that there is. The method you used—by the taste—is pretty reliable, but sometimes the bees gather what is called honey-dew, that tastes about as bad as any adulterated article. But I don't remember that I ever tasted any with a bad taste, of the bees' gathering, that was not pretty dark in color, and the adulterated article may be very light in color.

You're wrong in judgment as to the bees losing their sense of taste. When they gather bad honey, I think you will find it's not because they think it's good, but because it's the best they can get.

#### Packing Honey for Long Shipment.

Is it possible to send comb honey from California to Boston without serious damage? If so, how? At Christmas I sent 24 sections, and 15 were broken. They were packed in a strong wooden case, and shipped by express. I want to send more; how can I do it with better success? J. B. Garvanza, Calif.

ANSWER.—One thing that will probably make a big difference in breakage is to send by freight. Never send comb honey by express. Express goods are handled more rapidly than freight, and a package of only 24 pounds would be thrown by express where it would be handled slowly by freight. It isn't an easy thing to get a single case of comb honey through from California to Boston in whole condition. A carload would be easier. I hardly know what would be the best way. One way to do would be to give no protection whatever, and another would be to try to protect very thoroughly. If you give no protection whatever, merely putting the honey in a case with glass on one or two sides, then the honey being in plain sight through the glass, and the glass showing, too, there would be some likelihood that it would be handled with care. If you try protection, put the case of honey in a box large enough so that you can pack it on all sides with excelsior shavings three or four inches thick.

#### Finding Queens—Full Sheets of Foundation in Brood-Frames.

1. If the "court" please, I should like to explain a little further regarding the "queen's death," mentioned on page 7. "I don't know" whether you meant to say I am a "slouch" at finding a queen or not, but I am quite sure the queen was not present at the time spoken of. How do I know? When I said "I made two thorough examinations," I meant it, for I think I saw every bee that was on the combs, and perhaps those that were not on the combs. They were not so numerous as to be two or three deep on the combs, but were rather sparsely distributed over the combs. Besides, the queen was quite yellow, and easily distinguished from the others. Further: By hustling around in the neighborhood, I found a weak colony, the queen of which was given me by the owner. This queen was introduced by caging her on a comb as the former one had been; but as the weather following was too cold to open the hive, she was not released for nearly a week. Several days afterward, the weather being fine, I examined them and found the queen all right. Now is not this pretty conclusive evidence that the Italian queen is dead? I mean, does it not prove to the "court," beyond a reasonable doubt,

that that queen was not present when I made those "thorough examinations?"

2. Now for a question regarding the use of comb foundation: A friend of considerable experience in bee-keeping tells me it does not pay to use full sheets in brood-frames. He advises about half sheets; then when a swarm is hived, contract by means of a division-board to about four frames, adding a frame at a time as fast as filled. What do you think of the plan? Would not the bees be pretty sure to fill frames thus with worker-comb? H. M. S.

Vine, Ohio.

ANSWERS—1. I'm pretty near stumped, but then I'm stubborn enough to insist that you couldn't be dead certain that the yellow queen was not still present at the time you introduced the last queen. Neither do I insinuate that you're any "slouch" at finding queens. The court admits that the circumstantial evidence is strong, but denies positive proof.

First, as to the careful looking over, not many bees being in the way—I don't know how to explain it, but a good many times I've been baffled in finding a queen in a nucleus so weak that it seemed every bee must be plainly seen. I've looked the combs over and over again, looked in all the corners of the hive, and no queen to be seen, but the next day I'd find her the first thing. Where she hid was and is a mystery, but I'm inclined to think I've had more trouble finding queens in these weaklings than in the strongest colonies.

Secondly. You caged another queen in the hive, and that last queen was accepted all right. Evidently you think the caged queen would not have been accepted if the yellow queen was all right when the last one was released. The court accepts your view as correct. But there's a possibility that although the yellow queen was dead when her successor was released, she was all right at the time the successor was caged. Sometimes I have kept extra queens by putting them in a cage and putting the cage over the brood-frames of a colony having a free laying queen. The caged queens were kept all right, but sometimes the bees have killed their own queen. So while you have strong circumstantial evidence, you mustn't insist there's any positive proof unless you want to be fined for contempt of court.

2. Taking all things into consideration, I prefer to have full sheets of foundation, but there are those whose opinions are entitled to great respect who think differently. W. Z. Hutchinson is a strong advocate for hiving swarms on starters instead of full sheets. C. J. H. Gravenhorst, high German authority, says the first four or five combs will be built as soon without foundation, but with the succeeding combs the case is different. If you contract to four frames, those four will probably be generally filled with worker-comb, but not always, where there is no foundation; but after those four frames are filled, if you add one frame at a time, you may count on a goodly proportion of drone-comb wherever there is no foundation.

#### An Interesting Beginning.

I want your advice about a colony of bees that has gone amiss with me. June 26 we moved to the house where we live (rented, of course); it belonged to an old bee-keeper who died in March, 1895. I had no interest in bees, nor ever had been near where they were; it was his son-in-law who rented the place, and asked me if I knew anything about bees. I simply said "No." Well, he said, "Just let them go, and I will set them back in the yard." In the fall there was an even 20 colonies.

Along about the middle of July a friend of mine came to visit me. "Oh," he said, "you have bees." I said, "Yes," in a listless fashion. He looked them all over and said, "I would not give a nickel ahead, for they are not doing anything." His father used to keep bees, so he was that much ahead. That interested me. We went over the lot; they were packed on the summer stands, and it was the middle of July. The brood-chambers were all covered, and what a mess, you have no idea! Spiders, crickets, ants—big black ones, small red ones; moths, and every conceivable rubbish. Some had honey-boxes on. One had a stomach-bitters' bottle on, but not one had the covers off the entrance from the brood-chamber.

Well, we rounded up the honey-boxes, but only got about half a dozen. "Well," he says, "scrub the caps or covers clean, and let them store their honey in that." So scrub I did. I can laugh now, but, Doctor, believe me, I was more in earnest than was ever a Buddhist saying his flower prayer. I cleaned them up, and what a transformation scene! Before, one would not have believed there was a bee around, but after



that my wife could not hang out anything on the lines but she got in the way.

Well, I caught a well-developed bee-fever, and I wanted information. I got some out of an old mechanical recipe-book about making bee-hives, and there were some pieces from the "Bee-Keepers' Text-Book." Picking up a copy of the Michigan Farmer, I wrote to Mr. George Hilton, who sent me samples of several bee-papers, and I sent in my little subscription to the Bee Journal, and also got the "A B C of Bee-Culture," but did not know a box-hive from a Langstroth until a gentleman from Michigan, who was visiting, told me that what I had were "patent hives." Well, then it was winter, and I could not disturb them, so I just let them go and trusted to Providence, but got left.

Now, here is my statement: Of my 20 colonies I found one dead, so that left 19. I averaged about 30 pounds of honey in 1895. My wife settled six swarms, and I lost two, making a gain of 4; I gave a friend one, so I have 3. The bees gathered honey till the 1st or 2nd of October, and I fixed them up for winter the middle of November. I went among them every day or so, and that caused some caustic remarks from some people anent sleeping among the bees, but I put that down to jealousy or meanness, or my helpmeet among the rest.

Well, I found out I could yet learn a little. I found one of the old colonies defunct, or like that bee-paper. You will understand now. I took it into the house and opened its hive; I found no bees to amount to much—say a dozen—a few drones half-hatched out, and stores all right. I cleaned them all up, took all the dead bees away, and put them in a spare room. I suppose they lost their queen and just dwindled away. Shall I give that colony to a young swarm, or properly, the first I can get?

1. Did I lose the queen, and did they dwindle, say from the time they cast the last swarm, or about that time? that was in the middle of August.

2. What shall I do with the frames, 12x10 inches? Shall I give a swarm in the hive as it stands, or take say two frames from each end, that would be four? R. B.

Havana, Ill., Jan. 16.

ANSWERS.—1. The great probability is that the colony swarmed and failed to secure a laying queen afterward. It is no very unusual thing for a young queen to be lost on her wedding-flight.

2. If the frames are not of the size you desire to use, you can either melt up the combs or else cut them out and fasten the worker part in such frames as you desire to use. If you desire to continue the use of that sized frame—mind you, I'm not urging you strongly to use an odd-sized frame—then you can use the whole of the frames to have a swarm on, but it will be a good thing to cut all the drone-comb out of seven or eight of them and fill up with patches of worker-comb cut out of the other one or two combs. Still better than to use them all in one hive it may be best to use two, three or four in two or more hives to put swarms on.

### Buying Bees—Keeping Bees Pure.

1. Can I buy a colony of Italian bees in an 8-frame hive with a tested queen? That is, do they sell them that way, or only in nucleus form?

2. What should such a colony cost, packed and delivered at their express office?

3. Have you any of your own in that form? If so, give me your price.

4. If I bought a colony in that condition, could I divide during the honey-flow of white clover or basswood?

5. I have some hybrids. Could I keep my young queens from being fertilized by the hybrids if I went to the trouble of cutting the drone-comb out of the hybrid colonies? There are no other bees within  $\frac{1}{4}$  of a mile of my place. They are all hybrids—no Italians in my neighborhood that I know of.

Baraboo, Wis.

H. W. S.

ANSWERS.—1. Yes, full colonies are sold, but not so often as nuclei.

2. You will not be wise to buy anything of the kind this time of the year, and before time to buy you'll find advertisements in this journal, some of them giving the prices of full colonies, and those that don't give prices will be glad to send you a price-list. I can't tell you what their prices will be. But if you want to get a full colony, try to buy from some one not too far off, for express charges are fearful.

3. No, sometimes I have honey to sell, but nothing else except advice, and you can have all of that you want for the

asking, providing you want it in print, for the publishers pay me for that.

4. Certainly, if you get a strong colony from a distance you can divide it or let it swarm, just the same as if you had wintered it.

5. It will be of no use to cut out drone-comb unless you put patches of worker-comb in place of that cut out, for the bees will fill up the empty place with drone-comb 19 cases out of 20. Of course, the more Italian drones and the fewer blacks, the better your chances, but if there are blacks within  $\frac{1}{4}$  of a mile there will be a pretty good chance of your bees mixing with them.

### Foul Brood—Color and Solar Heat.

1. What degree of heat is necessary to destroy the germs of foul brood?

2. Can there be danger of introducing foul brood by the use of foundation made from wax that was melted in the solar wax extractor?

3. What color has the least tendency to absorb or reflect solar heat? H. C. B.

ANSWERS.—1. I don't know. There has been quite a little discussion and experimenting about it, and some say the germs are destroyed at 212°. Indeed, I don't know that any one directly contradicts this. Dr. Howard, in his book on Foul Brood, says: "That the vitality of the spores of *bacillus alvei* is not always destroyed when exposed to a temperature approaching 212° for 45 minutes...but that boiling for an hour would destroy their vitality."

2. I think it is generally believed that there is no danger of infection from foundation, no matter how the wax may have been melted in the first place, for in making the foundation the wax is held at a point sufficiently high, and for a sufficient length of time, to destroy all spores.

3. Black absorbs the most and reflects the least. White reflects the most and absorbs the least.

### Sweet Clover—Leather-Colored Bees.

DR. MILLER:—After reading a great many valuable articles in different bee-papers, and seeing you are interested about sweet clover, and seeing what others have said about it, I will give my experience where we raise alfalfa, sweet clover, and sainfoin. I cut about 375 tons of alfalfa hay, which is good bee-pasture, so I can't tell how much honey sweet clover produces, but after it blooms it is just covered with bees until frosts. One frost will not kill it. Sainfoin is the earliest bee-feed in this country, but it doesn't last. I am well satisfied you can raise more sweet clover bee-feed from sweet clover on the same amount of ground than anything I ever saw. We use the hay to top our stacks, so I can't say how valuable the hay is, as it is always damaged, but here is the secret: It never blooms so profusely when once cut, and if it is seasonable it never stops blooming until it is killed by a freeze. It gets about 8 feet high if let alone. After it is cut it gets about 5 feet, but it is not so full of blooms. You want to cut say half before it blooms, so if it is not seasonable you will be all right. Just before it blooms is the time to cut it for hay and honey.

Our bees do not work on white clover very much. We never get a cell of dark honey. We get 120 pounds to the colony, spring count, of comb honey, on the average one year with another. I produced over 2,000 pounds of comb honey and 1,000 pounds in brood-frames, that I kept over to use next spring. I don't manage my bees like any one else, winter or spring.

Have you what is called leather-colored bees? If so, I want to buy or exchange queens. I have seven fine queens from different yards. You can have any color you like, from the dark imported to the yellowest. OREGON.

ANSWER.—As you have the dark imported, you have the leather-colored, for they're all one and the same thing.

**The Alsike Clover Leaflet** consists of 2 pages, with illustrations, showing the value of Alsike clover, and telling how to grow it. This Leaflet is just the thing to hand to every farmer in your neighborhood. Send to the Bee Journal office for a quantity of them, and see that they are distributed where they will do the most good. Prices, postpaid, are as follows: 50 for 25 cents; 100 for 40 cents; or 200 for 70 cents.

**Now is the Time** to work for new subscribers. Why not take advantage of the offers made on page 123?

# THE AMERICAN BEE JOURNAL

PUBLISHED WEEKLY BY  
GEORGE W. YORK & COMPANY,

Editors and Proprietors,

56 Fifth Avenue, CHICAGO, ILL.

REGULAR CONTRIBUTORS:

G. M. Doolittle, of New York. Prof. A. J. Cook, of California.  
Dr. C. C. Miller, of Illinois. Dr. J. P. H. Brown, of Georgia.  
J. H. Martin, of California. Rev. E. T. Abbott, of Missouri.  
Chas. Dadant & Son, of Illinois.

\$1.00 a Year—Sample Copy Sent Free.

[Entered at the Post-Office at Chicago as Second-Class Mail-Matter.]

Vol. XXXVI. CHICAGO, ILL., FEB. 20, 1896. No. 8.



**The Wisconsin State Convention** was held Feb. 6 and 7, at Madison. The officers elected for the ensuing year are: President, Franklin Wilcox, of Mauston; Vice-President, J. J. Ochsner; Secretary, N. E. France, of Platteville; and Treasurer, H. Lathrop. We have a number of the very valuable essays read at the meeting, which we intend to publish as soon as possible.

**Alfalfa or Lucern** is the title of Farmers' Bulletin No. 31, issued by the Department of Agriculture at Washington, D. C., some time ago. It not only gives excellent illustrations of alfalfa, but an immense amount of information in the line of its cultivation and value as a forage plant. A copy of this Bulletin can be had for the asking. Write for it if you are interested—and what bee-keeper is not interested in so valuable a honey-yielder as alfalfa has proven itself to be in certain localities of our country?

**F. I. Sage & Son Failure.**—We were greatly surprised to see in the New York Journal of Commerce and Commercial Bulletin, for Feb. 10, an account of the failure of F. I. Sage & Son, on Feb. 8. This firm have been well-recommended for a long time, and we had every reason to believe them an honorable firm, but it seems they left things in pretty bad shape, for from the published account they very suddenly left for parts unknown. We hope no bee-keeper has lost through them, though we fear they have, for this firm dealt largely in honey as well as other farm produce. Some of their creditors think the liabilities are all the way from \$25,000 to \$50,000. F. I. Sage & Son were originally from Wethersfield, Conn.

**That Benton Bee-Book.**—Hon. Eugene Secor of Forest City, Iowa, has this suggestion to offer in regard to Bulletin No. 1, prepared by Mr. Benton:

MR. EDITOR:—Let me suggest to the readers of the American Bee Journal that they write to their Congressmen for a copy of bulletin No. 1, issued by the Department of Agriculture, called "The Honey-Bee." It was written by Frank Benton, of the Division of Entomology. It is a book of 118 pages, well written, clearly printed, and handsomely illustrated. The reason they ought to write to their Congressmen is that the limited number of copies already printed is exhausted. No more can be issued without an appropriation.

If they ask their Congressman for a copy, he will know they are interested in the matter, and will be more likely to vote for a resolution authorizing the Secretary of Agriculture to print another edition.

A resolution has already been introduced, to authorize the printing of 20,000 more. You might say to him, if he cannot get a

copy you hope he will use his influence and vote for the passage of this resolution. This will inform our National Legislators that there is such an industry as bee-keeping—a fact which perhaps many of them do not know, and it may aid us in procuring further legislation in our interests. EUGENE SECOR.

Mr. Secor's suggestion is a good one. We regretted that it came just a little too late for our last issue, but it may yet result in much good to do as directed. It can surely do no harm, and as Mr. Secor says, "it may aid in procuring further legislation in our interests." That's a good point. Let those Washington folks know there is such an industry as bee-keeping, by literally flooding them with requests for copies of Bulletin No. 1, called "The Honey-Bee," by Frank Benton.

A review of this Bulletin we expected to give this week, but there was not room for it. We will try it again next week.

**C. R. Horrie & Co.**—In a recent editorial referring to this well-advertised firm of Chicago honey-dealers (?), we mentioned their having bought all the list of names of bee-keepers from Mr. Hutchinson that he had for sale. We did not intend to even intimate that Mr. Hutchinson furnished the names after Horrie & Co.'s unsatisfactory dealings with bee-keepers were known. Mr. H. let them have the names before he had received a single complaint against them, or of course he wouldn't have sold them the names for any price.

We understand that Horrie & Co. will drop the honey part of their business. It is a great pity that they didn't stop before they began it. Many bee-keepers would be better off now if they had done so. We personally and very strongly advised them to get out of the honey-business long ago, as we decided, after learning of their way of doing business, that they knew no more about the honey-business than a boy 10 years old.

**Commission for Selling Honey.**—Dr. Miller writes us as follows on the percentage charged by Chicago commission-men for handling honey:

MR. EDITOR:—I got myself into trouble when I said that 5 per cent. was the regular commission for selling honey in Chicago. As I have already said, that statement shows that I haven't very recently shipped honey to commission-men in Chicago. Please say to the friends that no more of them need write to correct me.

I think I am correct in saying that in past years 5 per cent. was the regular thing, no matter whether the amount sent amounted to a dollar or a hundred dollars. But from what a number write, I can hardly make out just what is the rule now, or whether there is any fixed rule upon which all the Chicago houses are agreed. Some say 10 per cent. on all amounts under \$100 and 5 per. cent on amounts over, but others say they have been charged 10 per cent. on amounts of more than \$200. Now can you tell us anything about what the rule is, or is there any rule? C. C. MILLER.

Doctor, we have about concluded that there is a "rule" on the subject among commission-men, and that rule is to charge 10 per cent. on any and every shipment, unless the shipper makes too big a "kick." We think it is all right to charge 10 per cent. on a shipment amounting to less than \$100, but to charge the same per cent. on a larger sale is next door to robbery, in our opinion.

An Iowa bee-keeper writes us that S. T. Fish & Co. charged him 10 per cent. on a shipment amounting to over \$200; and a Utah honey-producer says in a private letter that J. A. Lamont charged him 10 per cent. on a shipment that sold for over \$500.

We have come to the conclusion that bee-keepers can well afford to peddle their own honey from door to door, rather than hire commission-men to sell it, and, besides, stand the freight, cartage, and possible breakage or leakage.

**Coal-Oil Can Frauds.**—After reading the following letter received by a Chicago honey-dealing firm, from one of their customers, we think you will agree with us in saying that it is a fraud to use second-hand coal-oil cans for holding honey:

DEAR SIRS:—I am very sorry to inform you that I have just returned all of your last shipment of extracted honey. I thought that the California sage was all right, but I found, on heating a couple of cans (as we always do to melt the grain), that the honey had been packed in coal-oil cans, and I did not detect the fraud until the heat developed the oil. You will find that the honey is worthless, and should be returned to the producer at his expense. One can seemed to be worse than any of the others, so I emptied it into a clean can and cut the top out to see just what condition it was really in. On the inside I found that the oil had not been washed out at all—the sides of the can are covered with oil so



much that the honey don't stick to the tin. I sent the empty can along so that you can see for yourselves.

Just examine that empty can—it shows premeditated fraud—the cap has been changed from the original top to the bottom for the purpose of covering up the stamp of the oil company. Now, I claim that the commission merchants are largely to blame for such vandalism. All you would have to do, would be to notify California producers that oil packages would not under any circumstances be accepted.

Yours very truly,

HONEY-MAN.

We cannot understand how any bee-keepers can have the "gall," or the poor business sense, to use cans that have had coal-oil in them, for holding honey, when they ought to know that the flavor of honey is very easily affected and totally injured. What poor policy it is to try to save a few cents of cans, and run the risk of having the honey ruined and made wholly unfit for use! Surely, no readers of the American Bee Journal would be guilty of such an act, but if they know any bee-keeper using old coal-oil cans for honey, they should try to stop it if at all possible, for by the wrong-doing of one, or a few, the whole fraternity must sometimes suffer.

**Missouri Agricultural Report.**—We have just received a copy of The 27th Annual Report of the State Board of Agriculture of Missouri for 1894, prepared by Secretary J. R. Rippey. It is a book of over 350 pages, bound in cloth, and is a credit to the State and its Board of Agriculture. We presume the book is for free distribution in Missouri. About 25 pages of the book are devoted to "Bee-Keeping," in which appear some of the discussions, as well as a number of essays read, at the St. Joseph, Mo., convention of the North American Bee-Keepers' Association held in 1894.

We shouldn't wonder if to ex-President E. T. Abbott is due the credit for the fine showing which bee-keeping receives in the Report. When introducing the subject of "Bee-Keeping"—after mentioning the meeting of the North American at St. Joseph—the Report says:

This society represents the industry in the United States and Canada, and as apiculture is a growing and important branch of agriculture, we have thought best to give it a considerable space in this Report. While it may not seem to have become sufficiently advanced locally to justify giving it so much attention, yet we feel that bee-keeping is of very great importance to the farmers of the State. It already adds largely to the income of our people, and we firmly believe that the profits derived therefrom will be greatly increased in the near future, as our citizens become more acquainted with the tools and methods of modern apiculture and its possibilities in our State. There is scarcely a locality in the State where a few bees may not be kept, and some parts of the State are especially suited to the profitable carrying on of this industry in connection with mixed farming.

As advanced methods of agriculture are introduced, and our people, as a result of this, give more attention to the growing of berries, orchards, small fruits and the clovers, the possibilities of apiculture in the State of Missouri will be greatly increased. Believing this to be true, and thinking that it would be in many ways profitable to our readers, we present herewith a lengthy report of the doings of the convention referred to above.



#### Buying to Sell Again.

Labeling the honey that a bee-keeper buys to supply his customers after his own crop is sold is being discussed a little. Getting up labels praising one's honey as being peculiarly superior to that produced by others, and then buying honey and selling it under such labels would be deception. As labels are usually worded, and as honey is usually bought and sold, I doubt if there will usually be any deception if both lots of honey are sold under the same label. I have bought and sold a great deal of honey, but I don't know as the question was ever asked me if the honey was of my own production, although I have frequently told customers that the honey was some that came from so and so, but they never seemed to manifest any particular interest in the matter. As a rule, I think

people don't care who produces the honey so long as it is good. I certainly would not word a label in such a way as to deceive. It may be that some labels are unintentionally deceptive, and if a man is making a business of buying and selling it might be well to have his labels so worded that no one could be deceived even if he tried to be.—Review Editorial.

#### Age of Bees.

Early last May I hived a swarm of Italians, and next day I found their queen dead under the alighting-board. I gave the colony a queen-cell. The weather was unusually cool at the time, and, several weeks after, I noticed that the hive was queenless; and on opening it I found that the young queen had never emerged from the cell. Laying-workers being present, no effort was made to requeen. In July, noticing that the hive was very heavy, and fearing robbers, I removed the hive and substituted a three-frame nucleus hive on the same stand, and drove the bees from the old hive with smoke. They took refuge in the nucleus hive, which was furnished with frames filled with foundation. Desiring to see how long they would live without a queen, and hoping that they would draw out the foundation, I let the bees remain in the nucleus hive all summer. They drew out the foundation in one frame in a patch about 5 inches in diameter, and survived until October 16, when the last one perished. This is evidence that bees may survive for six months of summer—an occurrence that seems a little unusual in view of what is usually taught in the books. The swarm was secondary, and the queen, consequently, a virgin, and no brood was reared, so that the last survivor was over six months old.—Gleanings.

#### Beginning of the Bee-Year.

The German wise heads say the bee-keepers' year does not begin either with spring or with January, but with October 1. There, now! All my records and things are adjusted to a bee-year beginning October 4. I'm within three days of it—just by the fortuitous circumstances of buying the apiary on that day. And the experience of so many years shows me that it is indeed just the proper place to divide year from year.—E. E. HASTY, in Review.

#### Quoting Honey at More Than Actual Market Prices.

Both in and out of the convention I learned that some of the houses, not only in Chicago, but other cities as well, had been making a practice of making special high quotations—at all events, considerably higher than it would be possible for them to realize in the open market. The object of this, of course, was to get consignments from bee-keepers; and in this they succeeded admirably. Well, having received the consignments these firms in many cases do not scruple to meet the sharpest competition in the open market, irrespective of what they had promised in the way of returns to the bee-keeper; and the honey will be sold for several cents lower per pound. Of course, there is complaint; but the commission house gets out of it by claiming a loss in leakage, broken-down comb honey, or poor quality all round. Again, they will claim to sell at quotations. They will quote at, say, 15 cts. per lb., and realize to the bee-keeper perhaps 8 cts. They claim that the honey was sold at 15 cts.; but after taking out the cartage, freight, commission, leakage, and other little items, they will work it around somehow so as to net the bee-keeper only 8 cents.—Gleanings Editorial.

#### A Few Healthy Dont's for Beginners.

In the first place, don't get too many colonies to start with. Two is enough, not more than four or five at the outside. After having secured your start, don't be in too much of a hurry about increasing your colonies. Don't divide them into a number of small colonies and expect to be able to get a crop of honey. With your limited experience you will simply sacrifice your honey crop for increase, and still have no experience in what is essential for a beginner to learn—the art of holding colonies advantageously for securing a crop of honey. Have patience, and don't try to go too fast. Let your efforts be directed to getting your colonies strong for the honey-flow, and always do all you can to discourage swarming rather than encourage it, and then you will find they will increase as fast or faster than your growing knowledge will enable you to handle them profitably.

After having started in the spring, and had one summer's experience, don't spend your time the following winter inventing a hive that will revolutionize the bee-keeping world, for hives and frames of every conceivable size and shape have been tried, and over a quarter of a century of experience by

the leading scientific bee-keepers has decided that the hives and frames now catalogued as standard by all supply dealers are the nearest approach to perfection that has yet been attained.

Don't buy hives that take other than a standard frame, for they are sure to be a vexation to you in the end.

Don't conduct new and costly experiments in your apiary until you have had several years of experience in the more common methods of bee-keeping. By that time you will have learned enough to let the other fellow do the experimenting. Experimenting is costly business, as I happen to know by experience. I followed this will-o'-the-wisp two or three years and made some grand inventions and many new and important discoveries, but just as I was about to turn them over to the bee-keeping public and become its everlasting benefactor, I invariably found that some other seeker had been there 10 or 15 years before, and that the thing I had spent so much time and money on had long since been discarded for having no other merit than incumbency. And so it will be with any that go beyond their light.

Don't fail to get one or two good standard works on bees, and study them carefully. Besides, subscribe to one or more bee journals, or as many as you can afford. I know the beginner is apt to think he cannot afford any, but the truth is, if he has but one or two colonies of bees, he cannot afford to do without them. I take six, and my name is not Vanderbilt either, but I get so much practical good out of them I cannot afford to do with less.—ED. JOLLEY, in American Bee-Keeper.

#### Shade for Hives.

Sunflowers make a neat, effectual and desirable shade for hives. The seed must be planted early and the ground rich in order to have the plants large enough to furnish shade during the hot days of June and July. Plant five or six seeds in a row four feet long and a foot south of each hive. As the plants grow they can be thinned out if necessary. A sunflower apiary is decidedly picturesque.—Review.

#### Making a Feed-Syrup for Bees.

At the Home of the Honey-Bees they now incline toward a feed-syrup made by putting cold water into the extractor and pouring in sugar while the reel is run. Continue running the thing 10 or 15 minutes. Proportions half and half; or two of water to three of sugar for late feeding. No clubs—but if we follow all of Ernest's feeding plans will not Lincoln's story of the college graduate who came home and plowed, and followed too strictly his father's direction to "drive directly toward the black heifer"—will not that just about describe the crookedness of our furrow?—E. E. HASTY, in Review.



DR. J. P. H. BROWN, AUGUSTA, GA.

[Please send all questions relating to bee-keeping in the South direct to Dr. Brown, and he will answer in this department.—EDS.]

#### Most Likely a Laying-Worker.

DR. BROWN:—What is best to do in the following case? I looked through my hives yesterday (being a warm day) for the first time since Nov. 25. I found all had plenty of stores, and appeared to be strong and healthy, but in one colony I found on the center comb a little patch of *drone-brood in worker-cells* about three inches square. The brood was partly sealed and partly unsealed. I could not find the queen, but I am not sure that they are queenless, for none of my other queens are laying yet, and this colony had a very fine queen all last year, and was the gentlest 5-banded colony I had. Do you think it is possible that a laying-worker is the cause of it? I shall look at them again in a few days—the next warm day—it has been very cold since. The only reason I think it is drone-brood is because it stands out about  $\frac{1}{4}$ -inch beyond the comb when sealed, and is regular in every cell for about 3 inches square, and all in worker-cells on foundation. Where

do the eggs come from? None of the other queens are laying yet. Fruit generally blooms here sometime during February, and they should be starting now.

F. C. D. R.

Abilene, Tex., Jan. 11.

ANSWER.—The colony you refer to has either a very small unimpregnated queen, or a laying-worker—most likely the latter. The brood is drone. As soon as you can, give them a frame of unsealed brood to assist and encourage them. They may start queen-cells, but the queens would be of no service from the fact of you having no drones to fertilize them. Still, by giving a frame of brood occasionally you can preserve the colony until you get drones and then allow them to rear a queen. Before this you had better not allow any queen-cells to mature.

#### Bee-Smokers—Bee-Quilts.

There is a great deal in being used to a thing, I know, and sometimes it is mighty hard for an old foggy to get used to some of the new-fangled ideas that are set afloat now-a-days. When I began bee-keeping, or rather, when I began "to put on style" in bee-keeping, I did not want to spend much money buying new fixtures. Of course, I had to buy a smoker—not that I could not get along without it (we had been getting along with a roll of rags a long time), but I wanted my neighbors to see that I was progressive—I wanted to get ahead by getting something new. I bought a Clark smoker—I got used to it—learned to handle it, and liked it very much. I found one objection to it—it would not last *always*.

So, after about ten years, I concluded to buy another smoker, and sent to my supply dealer for a Clark smoker, but when I began to smoke with that smoker, I smoked myself instead of the bees—it smoked the wrong way. I sold it to a neighbor, and began to manufacture my own smokers (not for sale) because all the catalogues I could get showed that smoker all twisted out of shape. Not a word have I seen written against the change, and sometimes I wonder if all the good writers are really bee-keepers. Sometimes I think may be the manufacturers are not interested as much in handling bees as in the manufacture of supplies. How practical bee-keepers can tolerate a so-called Clark smoker, with the bellows opening next to the nozzle, I cannot understand. Every time it is opened and shut it is a banter to the bees, which they are sure to resent. Has any one ever suggested that the change was an improvement?

#### QUILTS OVER THE FRAMES.

On page 46 Mr. Thos. Thurlow asks: "What do people use quilts on top of the frames for? What do they do with them when they get covered with propolis," etc.?

I use a quilt made of smooth cotton cloth, usually called "sheeting," as a covering for the frames or sections, to confine the bees in their proper place, because it is cheaper and more easily handled than a board cover.

When the quilts get pretty well covered with propolis and wax, I give them a good ironing with an iron just warm enough to melt the wax when moved slowly over them several times, and then I have an ideal quilt—a quilt that will keep the bees dry, should there happen to be a leak in the hive-cover. I use the gable hive-cover.

I know nothing of the ripping and cracking that run the bees crazy, but I suggest that when the propolized cloth over a full colony of bees is so very hard that it breaks with a crash, the hive should not be opened unless the bees need feeding, as they will surely be injured by exposure to the cold.

Bessemer, Ala.

C. C. PARSONS.

☞ Bee-keeping offers additional funds to the poorly paid; out-door air to clerk and office-hand; healthful exercise to the person of sedentary habits; opportunity for the poor to reap what would otherwise go to waste; and superior recreation to the student, teacher and professional man, especially to him whose life-work is of that dull, hum-drum, routine order that seems to rob life of all zest.—PROF. COOK.

☞ **The McEvoy Foul Brood Treatment** is given in Dr. Howard's pamphlet on "Foul Brood; Its Natural History and Rational Treatment." It is the latest publication on the subject, and should be in the hands of every bee-keeper. Price, 25 cents; or clubbed with the Bee Journal for one year—both for \$1.10.

☞ **Every Present Subscriber** of the Bee Journal should be an agent for it, and get all others possible to subscribe for it.



# Book Premiums for Getting New Subscribers

For each New Subscriber to the American Bee Journal sent us by a present subscriber, we will give as a Premium 40 cents' worth of the Books, Pamphlets, etc., described on this page—figuring on the retail price given in connection with each book, etc., below. This is a very easy way to get a lot of most excellent literature.

## Free Copy of "BEES AND HONEY" to Every New Subscriber.

Yes, in addition to the above offer, we will mail free a copy of Newman's 160-page "Bees and Honey"—premium edition—to each new subscriber. NOW IS JUST THE TIME to work for big lists of New Subscribers.

The American Bee Journal List Should Easily Be DOUBLED on these Liberal Offers.

## BEE-BOOKS

SENT POSTPAID BY

George W. York & Co.,  
Chicago, Ills.

**Bees and Honey, or Management of an Apiary for Pleasure and Profit.** by Thomas G. Newman.—This edition has been largely re-written, thoroughly revised, and is "fully up with the times" in all the improvements and inventions in this rapidly-developing pursuit, and presents the apiarist with everything that can aid in the successful management of an apiary, and at the same time produce the most honey in an attractive condition. It contains 250 pages, and 245 illustrations—is beautifully printed in the highest style of the art, and bound in cloth, gold-lettered. Price, \$1.00.

**Langstroth on the Honey-Bee**, revised by Dadant.—This classic in bee-culture, has been entirely re-written, and is fully illustrated. It treats of everything relating to bees and bee-keeping. No apiarian library is complete without this standard work by Rev. L. L. Langstroth—the Father of American Bee-Culture. It has 530 pages; bound in cloth. Price, postpaid, \$1.25.

**Bee-Keepers' Guide, or Manual of the Apiary**, by Prof. A. J. Cook, of the Michigan Agricultural College.—This book is not only instructive and helpful as a guide in bee-keeping, but is interesting and thoroughly practical and scientific. It contains a full delineation of the anatomy and physiology of bees. 440 pages; bound in cloth and fully illustrated. Price, postpaid, \$1.25.

**Scientific Queen-Rearing**, as Practically Applied, by G. M. Doolittle.—A method by which the very best of Queen-Bees are reared in perfect accord with Nature's way. 176 pages, bound in cloth, and illustrated. Price, \$1.00.

**A B C of Bee-Culture**, by A. I. Root.—A cyclopedia of 400 pages, describing everything pertaining to the care of the honey-bees. It contains 300 engravings. It was written especially for beginners. Bound in cloth. Price, \$1.25.

**Advanced Bee-Culture, Its Methods and Management**, by W. Z. Hutchinson.—The author of this work is too well known to need further description of his book. He is a practical and entertaining writer. You should read his book. 90 pages, bound in paper, and illustrated. Price, 50 cts.

**Rational Bee-Keeping**, by Dr. John Dzierzon.—This is a translation of his latest German book on bee-culture. It has 350 pages; bound in cloth, \$1.25; in paper covers, \$1.00.

**Bienen-Kultur**, by Thomas G. Newman.—This is a German translation of the principal portion of the book called BEES AND HONEY. 10 page pamphlet. Price, 40 cents.

**Convention Hand-Book**, for Bee-Keepers.—Thomas G. Newman.—It contains the parliamentary law and rules of order for Bee-Conventions—also Constitution and By-Laws, with subjects for discussion, etc. Cloth, gold-lettered. Price, 25 cts.

**Amerikanische Bienenzucht**, by Hans Buschbauer.—Printed in German. A hand-book on bee-keeping, giving the methods in use by the best American and German apiarists. Illustrated; 138 pages. Price, \$1.00.

**Thirty Years Among the Bees**, by Henry Alley.—Gives the results of over a quarter-century's experience in rearing queen-bees. Very latest work of the kind. Nearly 100 pages. Price, 50c.

**Why Eat Honey?**—This Leaflet is intended for FREE distribution, to create a Local Market. 100 copies, by mail, 40 cts.; 500 for \$1.50; 1000, \$2.50. If 500 or more are ordered at one time, your name and address will be printed on them FREE.

**How to Keep Honey** and preserve its richness and flavor. Price same as Why Eat Honey.

**Apiary Register**, by Thos. G. Newman.—Devotes two pages to a colony. Leather binding. Price, for 50 colonies, \$1.00; for 100 colonies, \$1.25.

**Preparation of Honey for the Market**, including the production and care of comb and extracted honey. A chapter from BEES AND HONEY. Price, 10 cents.

**Bee-Pasturage a Necessity**.—This book suggests what and how to plant. It is a chapter from BEES AND HONEY. Price, 10 cents.

**The Hive I Use**, by G. M. Doolittle. It details his management of bees, and methods of producing comb honey. Price, 5 cents.

**Dr. Howard's Book on Foul Brood**.—Gives the McEvoy Treatment and reviews the experiments of others. Price, 25 cts.

**Dictionary of Apiculture**, by Prof. John Phin. Gives the correct meaning of nearly 500 apicultural terms. Price, 50 cts.

**Winter Problem in Bee-Keeping**, by G. R. Pierce. Result of 25 years' experience. 50 cts.

**Handling Bees**, by Chas. Dadant & Son.—A Chapter from Langstroth Revised. Price, 8 cts.

**Bee-Keepers' Directory**, by H. Alley.—Latest methods in Queen-Rearing, etc. Price, 50c.

**Foul Brood Treatment**, by Prof. F. R. Cheshire.—Its Cause and Prevention. Price, 10 cts.

**Foul Brood**, by A. R. Kohnke.—Origin. Development and Cure. Price, 25 cts.

**History of Bee-Associations**, and Brief Reports of the first 20 conventions. Price, 15 cts.

**Honey as Food and Medicine**, by T. G. Newman.—A 32-page pamphlet: just the thing to create a demand for honey at home. Should be scattered freely. Contains recipes for Honey-Cakes, Cookies, Puddings, Foam, Wines, and uses of honey for medicine. Prices, prepaid—Single copy, 5 cts.; 10 copies, 35 cts.; 50 for \$1.50; 100 for \$2.50; 250 for \$5.50; 500 for \$10.00; or 1000 for \$15.00.

When 250 or more are ordered, we will print the bee-keeper's card (free of cost) on the front cover page.

**Bee-Keeping for Profit**, by Dr. G. L. Tinker.—Revised and enlarged. It details the author's "new system, or how to get the largest yields of comb or extracted honey." 80 p.; illustrated. 25c.

**Emerson Hinders**, made especially for the BEE JOURNAL, are convenient for preserving each number as fast as received. Not available to Canada. Price, 75 cts.

**Commercial Calculator**, by C. Ropp.—A ready Calculator, Business Arithmetic and Account-Book combined in one. Every farmer and business man should have it. No. 1, bound in water proof leatherette, calf finish. Price, 40 cts. No. 2 in fine artificial leather, with pocket, silicate slate, and account-book. Price, 60 cts.

**Green's Four Books**, by Chas. A. Green.—Devoted to, 1st, How We Made the Old Farm Pay; 2nd, Peach Culture; 3rd, How to Propagate Fruit-Plants, Vines and Trees; 4th, General Fruit Instructor. Nearly 120 pages. Fully illustrated. 25 cts.

**Green's Six Books on Fruit-Culture**, by Chas. A. Green.—Devoted 1st, to Apple and Pear Culture; 2nd, Plum and Cherry Culture; 3rd, Raspberry and Blackberry Culture; 4th, Grape Culture; 5th, Strawberry Culture. 129 pp.; illustrated. 25 cts.

**Garden and Orchard**, by Chas. A. Green.—Gives full instructions in Thinning and Marketing Fruits; Pruning, Planting and Cultivating; Spraying, Evaporation, Cold Storage, Etc. 94 pages, illustrated. Price, 25 cts.

**Kendall's Horse-Book**.—35 pictures, showing positions of sick horses, and treats on all their diseases. English or German. Price, 25 cts.

**Silo and Silage**, by Prof. A. J. Cook.—It gives the method in operation at the Michigan Agricultural College. Price, 25 cts.

**Lumber and Log-Book**.—Gives measurements of lumber, logs, planks, wages, etc. 25c.

**Maple Sugar and the Sugar Bush**, by Prof. A. J. Cook.—Full instructions. Price, 35 cts.

**Grain Tables**, for casting up the price of grain, produce, hay, etc. Price, 25 cts.

**Capons and Caponizing**, by Dr. Sawyer, Fanny Field, and others.—Illustrated. All about caponizing fowls, and thus how to make the most money in poultry-raising. 64 pages. Price, 30 cts.

**Our Poultry Doctor, or Health in the Poultry Yard and How to Cure Sick Fowls**, by Fanny Field.—Everything about Poultry Diseases and their Cure. 64 pages. Price, 30 cts.

**Poultry for Market and Poultry for Profit**, by Fanny Field.—Tells everything about the Poultry Business. 64 pages. Price, 25 cts.

**Turkeys for Market and Turkeys for Profit**, by Fanny Field.—All about Turkey-Raising. 64 pages. Price, 25 cts.

**Rural Life**.—Bees, Poultry, Fruits, Vegetables, and Household Matters. 100 pages. 25 cts.

**Strawberry Culture**, by T. B. Terry and A. I. Root. For beginners. Price, 40 cts.

**Potato Culture**, by T. B. Terry.—It tells how to grow them profitably. Price, 40 cts.

**Carp Culture**, by A. I. Root and Geo. Finley.—Full directions. 70 pages. Price, 40 cts.

**Hand-Book of Health**, by Dr. Foote.—Hints about eating, drinking, etc. Price, 25 cts.

**Alsike Clover Leaflet**.—Full directions for growing. 50 for 25 cts.; 100 for 40 cts.; 200, 70c.

## Book Clubbing Offers.

(Read Carefully.)

The following clubbing prices include the American Bee Journal one year with each book named. Remember, that only ONE book can be taken in each case with the Bee Journal a year at the prices named. If more books are wanted see postpaid prices given with the description of the books on this page. Following is the clubbing-list:

1. Langstroth on the Honey-Bee.....	\$2.00
2. A B C of Bee-Culture.....	2.00
3. Bee-Keepers' Guide.....	1.75
4. Bees and Honey [Cloth bound].....	1.65
5. Scientific Queen-Rearing.....	1.75
6. Dr. Howard's Foul Brood Book.....	1.10
7. Advanced Bee-Culture.....	1.30
8. Amerikanische Bienenzucht [Germ.].....	1.75
9. Bienen-Kultur [German].....	1.25
10. Rational Bee-Keeping [Cloth bound].....	2.00
11. Rational Bee-Keeping [Paper bound].....	1.75
12. Thirty Years Among the Bees.....	1.30
13. Bee-Keeping for Profit.....	1.15
14. Convention Hand-Book.....	1.15
15. Poultry for Market and Profit.....	1.10
16. Turkeys for Market and Profit.....	1.10
17. Capons and Caponizing.....	1.10
18. Our Poultry Doctor.....	1.10
19. Green's Four Books.....	1.15
20. Green's Six Books on Fruit-Culture.....	1.15
21. Garden and Orchard.....	1.15
22. Rural Life.....	1.10
23. Emerson Binder for the Bee Journal.....	1.60
24. Commercial Calculator, No. 1.....	1.25
25. Commercial Calculator, No. 2.....	1.40
26. Kendall's Horse-Book.....	1.10
27. Strawberry Culture.....	1.20
28. Potato Culture.....	1.20
29. Carp Culture.....	1.20
30. Hand-Book of Health.....	1.10
31. Dictionary of Apiculture.....	1.35
32. Maple Sugar and the Sugar Bush.....	1.20
33. Silo and Silage.....	1.10
34. Winter Problem in Bee-Keeping.....	1.30
35. Apiary Register (for 50 colonies).....	1.75
36. Apiary Register (for 100 colonies).....	2.00
37. Bee-Keepers' Directory.....	1.30

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

## California

If you care to know of its Fruits, Flowers, Climate or Resources, send for a Sample Copy of California's Favorite Paper—

### The Pacific Rural Press

The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated, \$2.00 per annum. Sample Copy Free.

**PACIFIC RURAL PRESS,**  
220 Market St., - SAN FRANCISCO, CAL.  
Mention the American Bee Journal.

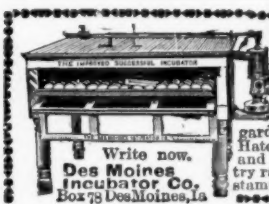


**OUR POULTRY ANNUAL**  
and Book of Valuable Recipes, 64 large pages, contains 8 beautiful colored plates of fowls, gives description and prices of 45 varieties, with important hints on care of poultry, and pages of recipes of great value to everyone. Finest Poultry Book published for 1896. Postpaid only 10 cts.  
**C. N. Bowers, Box 24, Dakota, Ill.**

52A13 Mention the American Bee Journal.

### WANTED!

10,000 pounds of BEESWAX, for Cash. Address,  
**LEAHY MFG. CO., Higginsville, Mo.**  
Mention the American Bee Journal.



**SUCCESSFUL INCUBATOR**  
Our magnificent new catalogue giving full information regarding artificial hatching & brooding and treatise on poultry raising sent for 4c stamps. Circular free.

49A13t Mention the American Bee Journal.

### For Sale—A Bargain.

119 Colonies of Italian Bees in Chaff Hives. Good House, and 2 acres of Land, with excellent well of water. **E. L. CARRINGTON,**  
5A4t **PETTUS, Bee Co., TEX.**

### CALIFORNIA, "WAKE UP!"

The Pacific Bee Journal, devoted to the Protection and Advancement of Bee-Keepers' Interests on the Pacific Slope. 50 cts. per year. Send for sample copy.

### THE BENNETT BEE-HIVE COMPANY

now make Foundation, at 40 cents per pound. Bee-Hive Bodies (plain corners) 17½c. each. Common Bee-Hive, 2-story, 60 cts. each. Dovetailed Hives, \$1.00 each.

Sections and Supplies low. Send for Price-List, and Save Money.

365 E. Second St., **LOS ANGELES.**

Mention the American Bee Journal.

### Italian Bees for Sale.

Prices will be as follows.

One Colony.....	\$6.00
Five Colonies.....	28.00
Ten ".....	50.00

Each Colony will contain one of my \$2.00 Queens.

### NUCLEUS COLONIES.

Any size from One frame up. Select Tested Queens, \$2.00 each, or Two for \$3.00. Breeding Queens, \$3.00 to \$5.00. Address,

8E2t **F. A. CROWELL,**  
GRANGER, Fill. Co., MINN.

**ALFALFA, CRIMSON AND ALSIKE**  
Clover Seed. One or more lbs. by mail, 25c.; bushel, \$6.00; peck or more at bushel rates. Invaluable for honey and forage.

8A4t **Dr. C. L. PARKER,**  
ONONDAGA, ONON. CO., N. Y.

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

## General Items.

### His Largest Yield.

My largest yield was in 1882—1,960 pounds of comb honey from 14 colonies. I sold it all at 20 cents per pound.

Peotone, Ill.

C. SCHRIER.

### Some Big Honey Crops.

In 1882 I secured 10,175 pounds of honey from 60 colonies, spring count, and increased to 150. It was about ¾ extracted and ¼ comb. In the spring I selected one that I thought an average colony, and weighed all the honey taken from it—it footed up 306 pounds of extracted honey, leaving enough in the hive for the bees to winter on. It cast one swarm, and from this I extracted 150 pounds, making a total of 456 pounds, spring count.

In 1889 I got 9,000 pounds of extracted and 4,000 pounds of comb honey from 90 colonies, spring count, and increased to 160. There have been some very poor seasons, but my bees always got enough to winter on. I use a chaff hive, and winter bees on the summer stands.

Gilson, Ill.

C. W. McKOWN.

### Sowing Buckwheat for Honey.

On page 37 Dr. Miller quotes from Mr. Quinby, that an acre of buckwheat yielded 25 pounds of honey a day, but says he believes the veteran Quinby was guessing. Any one planting buckwheat for honey would be assured of that fact. Of course, in some localities it will yield more than in others. On my trip in October, 1895, I visited a good many bee-keepers in northern Ohio, and found nearly every one planted several acres of buckwheat for his bees, and said they thought it paid. But my experience would not bear out that assertion. I sowed two acres July 15, 1894, got a good stand, full bloom Aug. 15 to Sept. 1, yet I do not believe my bees stored a pound of buckwheat honey. I never found but a few bees working on it at any time. I attribute their failure to work on it to the fact that the "dry weather honey-vine" began to bloom about the same time, and continued until cut down by frost. This shows more strongly than ever that bee-keepers must not plant for honey alone.

Evansville, Ind. J. C. WALLENMEYER.

### Several Questions Noted.

**SWEET CLOVER.**—I am pleased to see so much interest taken in sweet clover. It might be of great value to the Southern bee-keeper as a honey-plant. Where it grows here by the roadside, it is alive with bees when there is nothing else for them to work on, or at any time when it is in bloom; but we do not have it in large quantities to get any surplus from it.

**PREVENTING APIARY THIEVES.**—On page 29 E. C. Culbert speaks of having four vicious dogs to guard one apiary. Why not

enclose the apiary with Page woven wire fence and a barbed wire over that, and put a vicious dog in the enclosure. Use more wire and less dog, and mark the result.

**MOVING BEES.**—On page 20, W. C. H. asked how to move his bees. Now if those bees were mine I should not consider it a very bad job. If the frames had not been moved or handled since cold weather I should not try to fasten them, and if the hives are in a dilapidated condition, so as to allow the bees to escape all around, the bottom-boards undoubtedly would come off easily, and I should take them off, or rather, take the hives off of them. Then have at hand about 1½ yards of sheeting, and place that on the bottom-board so about 5 inches of it will be out on one side, the balance over the bottom-board and the other side. Now set the hive on this, and when the bees are settled you can fold the sheeting over or around the whole hive, and with a few small nails and strips like bottom-bars or comb-guides, the cloth can soon be made fast, and not a bee can escape. Use the cloth full width, and that will give a good chance to fold over the ends of the hive. The bees will not gnaw out, only don't let the hives rub together and wear a hole through. The cloth or sheeting here would cost 6 cents per yard, or 9 cents per hive—as cheap as wire-cloth for the top of the hive. I have moved bees 13 miles with only cloth like this to keep them in.

C. A. HUFF.

Clayton, Mich.

### Bees Did Fairly Well in 1895.

Our bees did fairly well the past season. I got an average of 40 pounds of section honey per colony, varying from 8 pounds to 102 per colony. The Italians are far ahead of the blacks with us. One colony, which was given to us in September, 1894, which we drummed out of a box-hive, gave it an untested Italian queen in October, and wintered on candy, gave us 78 one-pound sections, and a good prime swarm. We have concluded to clip the stings of our queens, and breed out the habit!

Champlin, Minn.

W. H. STOUT.

### Sweet Clover Questions, Etc.

That picture on the first page of the Bee Journal for Dec. 19, is enough to make a bee-man turn green with envy. I want to thank Mr. Stolley for the excellent treatise on sweet clover that accompanied it. But to show that human nature is never satisfied, I would like to ask Mr. Stolley a few questions (for Dr. Miller's benefit, you know):

1. How do you cut and handle it when cutting for seed?

2. How do you get it hulled? Can it be hulled with a common clover-huller? Any other way? I am referring to a large lot of two or three acres or more?

I know by the last two years' experience that Mr. Stolley is right in saying that it is a much more reliable plant for honey than white clover, and is not affected by ordinary drouths. It is a wonderful plant to withstand drouths. Speaking of drouths,

## Got Something for Nothing!

**Did You?** Thousands of readers answering my ad. in the past received free by mail at a cost of 20 cents to me, a package of my discovery, VITÆ ORE, and 90 per cent. have written to thank me and send cash order for more, declaring that it had done them more good than all doctors and man-made remedies they ever used. I scorn to take any one's money until convinced at my expense that V.-O. is the best thing in, on, or out of the earth for all who suffer from ills no doctor or drug will cure, such as general debility, feebleness from over-work, worries, cares, protracted sickness, old age, female complaints, all kidney and membranous ailments. It is the only natural, Nature's cure for human ills ever offered to man, and not by a quack doctor or methods peculiar thereto. If you have been bamboozled often, and grievously, by robbers in the medicine business, I am not responsible therefor, but am if V.-O. fails to give greater satisfaction than all else you ever tried. Send the addresses of six sick people and I will do the balance.

THEO. NOEL, Geologist, Tacoma Building, Chicago, Ill.

Mention the Bee Journal.

6A4t



## The Bee-Keepers' Guide:

### Or Manual of the Apiary,

BY PROF. A. J. COOK.

This 15th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to give away to our present subscribers, for the work of getting new subscribers for the American Bee Journal.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published today. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without "THE BEE-KEEPER'S GUIDE."

### For Two New Subscribers and Your Own Renewal.

Send us Two New Subscribers to the Bee Journal and your own renewal (with \$3.00), and we will mail you a copy of Prof. Cook's book FREE as a premium, and also a copy of the 160-page "Bees and Honey" to each New Subscriber. Prof. Cook's book alone is \$1.25, or we club it with the Bee Journal for a year—both together for only \$1.75. But surely anybody can get only 2 new subscribers to the Bee Journal for a year, and thus get the book as a premium. Let everybody try for it. Will you have one?

GEORGE W. YORK & CO.,  
CHICAGO, ILLS



**ORIGINAL BINGHAM SMOKERS**

**Wonderful Record!**

HAVE LASTED 17 YEARS.

**BEST ON EARTH.**

**Always Give Perfect Satisfaction.**

My cool Wire Handle and Bent Nose were patented 1892, are the original, my best invention since my open or direct draft Patent, 1878, that revolutionized Bee-Smokers. My Handle and Nose Patent bent all the other smoker noses. None but Bingham Smokers have all the best improvements. If you buy genuine Bingham Smokers and Honey-Knives you will never regret it. The "Doctor," 3/4-inch larger than any other smoker on the market—3/4-inch stove, by mail, \$1.50

Conqueror, 3 " "	1.10
Large, 2 1/2-in. " "	1.00
Plain, 2-in. " "	.70
Little Wonder, 2-in. wt. 10 oz.	.60

Bingham & Hetherington Honey-Knives, 80 cents.

**T. F. BINGHAM, Farwell, Mich.**

7Atf Mention the Bee Journal.

19 Pigs. tested, pure, fresh garden seeds, 12 cts., postpaid. K. M. Thomas, Shenandoah, Iowa.

## TEXAS QUEENS.

If you are in need of Queens, let me have your order. Price-List Free.

8A26t J. D. GIVENS, Lisbon, Tex.

If "The Best is the Cheapest" is applicable to the purchase of anything, it is pre-eminently so to that of trees. You find no seedlings scattered through your orchard if you purchase direct of a thorough nurseryman. The Storrs & Harrison Company, Painesville, Ohio, have been in the nursery business over 40 years, have the reputation of being expert tree growers, and as you will see in our advertising columns offer a valuable catalogue free. If you are in want of trees, plants, seeds, or anything in the nursery line, send them your address on a postal.

did the readers of the Bee Journal know we had one? Yes, here in western Iowa we haven't had enough snow and rain together, since the middle of last August, to make one good, ordinary rain. It is fine winter weather, but where will our white clover be by spring?

That reminds me of another good trait of sweet clover. Last winter all white and red clover winter-killed here on account of dry winter, but sweet clover came through smiling as usual.

I wish to tell Mr. Peter J. Schartz (see page 807, 1895), that he must not blame a thing for not working right when it isn't put together rightly, or part is gone. If he will nail a strip of tin, or sheet-iron, 3/4 of an inch wide, across each end of those supers of his, that have the section-holders or slats on the bottom side, for the slats to rest upon, and then wedge the sections up tight from both sides and end, if necessary, I will undertake to get it off the hive and sections of honey out of it and cleaned in the same time he takes to get off his T super and clean the sections. If I can't do it I'll stand treat, Peter.

I got about 300 pounds of honey from 15 colonies, and increased to 28 the past season. If any bee-keeper in western Iowa has good comb honey to sell, I would like to urge him very strongly not to store it for 12 or 14 cents in trade to some store-keeper. As scarce as honey is, you can get 18 or 20 cents per pound cash for good, clean, comb honey. Don't let your honey stay on the hive until the sections are brown and the capping of the honey water-soaked. The honey may be just as good, and even better for it, but it won't sell as readily, or for as good a price. I just wish I could produce as much honey as I could sell for 18 and 20 cents per pound. E. S. MILES.

Denison, Iowa.

### 'Twas the Indian, Not the White Man.

Will you do me the favor to read again the manuscript of my biography, on page 101? Somebody who furnishes copy, or sets type, made a terrible mistake. I wrote: "Here, too, fished and hunted and drank fire-water and begged tobacco, a lone Indian, Johnathan Paul—the last of the Mohegans." Your types made me say that I did the hunting and fishing, and that I drank fire-water and begged tobacco of an Indian! My friends will be surprised to learn that I ever did any of those things. In my boyhood I was too much devoted to my books to spend any time hunting and fishing. Intoxicating liquors were quite freely used by most of the people around me at that time, but I never tasted them unless prescribed by my physician. They were used medicinally much more than now. I never entered a saloon in my life unless it was to call some man out with whom I had business which could not wait his pleasure. As for tobacco, I have never used it in any form.

In my early boyhood there was an Indian living in my native town whom the people called "Johnathan Paul." He spent his time in the way you have made me say I spent mine. When asked to what tribe he belonged, he would mutter "Mohegan." He was the last Indian that ever was seen in that region. It was the recollection of him that led me to write the unfortunate sentence.

Leon, Iowa.

[Mr. Bevins, we think the fellow that made you appear in such a bad light ought to be—well, what would you do with him? We'll have to own up that it was our fault entirely, and we are glad to give your correction. We are very sorry it occurred, and trust all our readers will read your letter above.—EDITORS.]

### A Bee-Cellar Described.

The spring of 1895 I started with two colonies of Italian bees which I purchased in the summer of 1894. The spring was rather backward, and the bees did not get started



**POULTRY**

40 Standard Breeds Illustrated & fully described in my new Poultry Book. Reliable information for poultrymen & intending buyers. Good stock Ducks & Geese; also Shetland Ponies. Send 6c in stamps.

E. H. COOK, Box 27, Huntley, Ill.

Mention the American Bee Journal. 4A13t

## BASSWOOD TREES!

Orders booked now for Spring delivery for

### Nursery-Grown Basswood Seedlings

5 to 9 inches high, at \$2.00 per 100; 300 for \$5 or \$15.00 for 1000. Parties living east of the Mississippi river will be supplied direct from our Nurseries in Ohio. Satisfaction guaranteed.

A. H. FITCH,  
702 Youngerman Bldg., DES MOINES, IOWA.

4Atf

Mention the American Bee Journal.

**REED'S YELLOW DENT**

**GRAND SWEEPSTAKES**  
CORN AT  
**ILL. STATE FAIR**  
1895.

Best Corn in the whole big Corn State of Illinois. Best Yellow Dent from NORTHERN Division, Best Yellow Dent from ALL Divisions. Best corn shown.

**MANDSCHEURI BARLEY.** Better than Manahury!

Sent out last year by the Wis. Ex. Station. Catalogue of Seed Potatoes, Field Seeds and Garden Seeds.

L. L. OLDS - Clinton - Rock Co. - Wis.

Mention the American Bee Journal.

## PATENT WIRED COMB FOUNDATION

Has No Sag in Brood-Frames

Thin Flat-Bottom Foundation

Has No Fishbone in the Surplus Honey.


Being the cleanest is usually worked the quickest of any Foundation made

J. VAN DEUSEN & SONS,  
Sole Manufacturers,  
Sprout Brook Montgomery Co., N. Y.

**For Sale**—A Dozen Colonies of Italian and Carniolan Bees in 8-frame Langstroth-Simplicity hives. The Combs all built on full sheets of foundation, wired in, and straight as a board. Seven of the Queens are imported, and all are of last year's rearing. Will be sold at \$5.50 per colony for imported and \$4.50 for native. Bees are in fine condition with plenty of stores to carry them through. Address:

W. J. CULLINAN,  
QUINCY, ILL.

7Atf

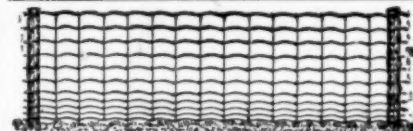


**NEW MAMMOTH**

Poultry Guide for 1896. Finest book ever published, contains nearly 100 pages, all printed in color, plans for best poultry houses, sure remedies and recipes for all diseases, and how to make poultry and gardening pay. Sent post paid for 15c.

John Bauscher, Jr., box 94 Freeport, Ill.

49A13t Mention the American Bee Journal.




## No Hurry! Take Your Time!

Just had a customer who was ten years making up his mind. Using our fence all the time too, as his farm joins a railroad with PAGE between. We send our paper free while you wait.

PAGE WOVEN WIRE FENCE CO., Adrian, Mich.

Mention the American Bee Journal.



**Promptness Is What Counts!**

Honey-Jars, Shipping-Cases, and everything that bee-keepers use. **Root's Goods at Root's Prices,** and the best shipping point in the country. Dealer in Honey and Beeswax. Catalogue Free.

Walter S. Ponder  
162 Mass. Ave.  
INDIANAPOLIS, IND.



## 50c Trial Sets Of Choice Seeds, Plants and Fruits.

By mail postpaid, safe arrival and satisfaction guaranteed. Order by the letters and the numbers from this advertisement NOW, as these are introductory sets, not in catalogue, an **Elegant Annual of 168 pages**, which will be sent free with first order. If none of these sets suit you and you want anything in our line send for **CATALOGUE FREE**. About 60 pages devoted to **VEGETABLE and FLOWER SEEDS, 70 to PLANTS and the balance to the CREAM OF THE FRUITS**. Trees and plants in these sets are all thrifty and well rooted. Try them.

- Set **J**—10 elegant prize blooming **Roses**, including one of the new famous **Crimson Rambler**. 50c  
 " **H**—16 pkts choice **Vegetable Seeds**, 15 sorts and 1 pkt. of our new **Golden Hubbard Squash**. 50c  
 " **F**—10 Fragrant **Carnation Pink**s, 10 sorts. 50c  
 " **G**—10 Prize **Chrysanthemums**, 10 sorts. 50c  
 " **H**—4 superb **French Cannas**, 4 sorts. 50c  
 " **K**—10 large flowered **Geraniums**, 10 sorts. 50c  
 " **L**—30 fine **Gladioli**, all flowering bulbs. 50c  
 " **N**—10 **Tuberose**s, 4 bulbs sorts all flowering. 50c  
 " **O**—10 flowering plants all different. 50c  
 " **P**—6 hardy ornamental **Shrubs**, 6 sorts. 50c  
 " **Q**—6 hardy **Climbing Vines**, 6 sorts. 50c  
 " **U**—2 elegant **Palms**, strong plants, 2 sorts. 50c

One-half each of any two sets 50c.. any 3 sets \$1.25. 5 sets \$2.00.

Everything of the best for **LAWN, CONSERVATORY, PARK, ORCHARD, VINEYARD and GARDEN.**

42nd YEAR.

1000 ACRES.

29 GREENHOUSES.

**THE STORRS & HARRISON CO., Box 219 Painesville, O.**

## CARLOADS



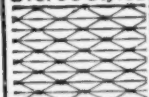
Of Bee-Hives, Sections, Shipping-Cases, Comb Foundation, and **Everything** used in the Bee-Industry.

I want the name and address of every Bee-Keeper in **America**. No reason why you cannot do business with me. I have Cheap Lumber and Experienced Workmen; a good Water-Power Factory and know how to run it. I am supplying Dealers as well as consumers. Why not you? Send for Catalogues, Quotations, etc. **W. H. PUTNAM, JR.**  
 RIVER FALLS, PIERCE CO., WIS.

Mention the American Bee Journal.

## WOVEN WIRE FENCE

Over 50 Styles



The best on Earth. Horse high, Bull strong, Pig and Chicken tight. You can make from 40 to 60 rods per day for from 14 to 22c. a Rod. Illustrated Catalogue Free. **KITSELMAN BROS.,**  
 Ridgeville, - Indiana.

48Etf Mention the American Bee Journal.

**WANTED—200 Colonies of Bees and 4-FRAME NUCLEI**, on Simplicity or Hoffman frames, in exchange for Supplies, to be shipped either from here or Medina, Ohio. Send for Catalog to—**GEO. E. HILTON,**  
 4E4t FREMONT, MICH.

## STRAWBERRY PLANTS FOR SALE.

Michigan Grown Plants are the Best.

**BUBACH, PARKER EARLE, HAYERLAND, WARFIELD and JESSIE.**

Vigorous Plants of the above well-known varieties, shipped direct from the Nursery—Lake View Fruit Farm, Gibson, Mich. 100, \$1.00; 200, \$1.50, postage paid. Special price on large quantities. Address,

**CHAS. N. TRIVENS, Manager,**  
 635 Chicago Stock Exchange, - CHICAGO, ILL.  
 6E4t Mention the American Bee Journal.

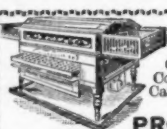
**WANTED**—By a young man (23) a position in a good apiary, or apiary and small fruit or gardening business combined, preferably South and near this State, for the coming season. Has already had good experience with bees, and is willing, serviceable, and active. Would appreciate a good home and a generous employer. Is an experienced clerk, with good references. Address,

6E4t **C. C. DOORLY, Alphin, Va.**

**Bees, Queens, Nuclei**—We will sell, the coming season, 500 Two-Frame Nuclei, with a Choice Warranted Queen, at \$2.50 each. Special prices on large orders furnished. **LEININGER BROS.,**  
 6E4t FT. JENNINGS, OHIO.

## WANTED.

10,000 pounds of **BEESWAX**, for Cash. Address,  
**LEAHY MFG. CO., Higginsville, Mo.**



## INCUBATORS

Our 160 page, finely illustrated Combined Poultry Guide and Catalogue will tell you what you wish to know about

### PROFITS IN POULTRY

We manufacture a complete line of Incubators, Brooders and Poultry Appliances. Guide and Catalogue 10c. (stamps or silver) **Worth one Dollar.** Reliable Incubator & Brooder Co., Quincy, Ills.

38E15t Please mention this Journal.

## COMB FOUNDATION WHOLESALE and RETAIL.

Are you going to buy Foundation for Cash, or have you Wax to sell or trade for Foundation and other Supplies? Have you 25 lbs. or more of Wax that you want made into Foundation? If so, do not fail to write me for samples and prices. I make a specialty of working up Wax by the lb., and do it very cheap during the winter. Beeswax wanted at all times.

**GUS DITTMER, AUGUSTA, WIS.**  
 Reference—Augusta Bank. 16Atf

Mention the American Bee Journal.

## IF YOU WANT THE BEE-BOOK

That covers the whole Apicultural Field more completely than any other published, send \$1.25 to Prof. A. J. Cook, Claremont, Calif., for his

## Bee-Keeper's Guide.

Liberal Discounts to the Trade.

## TAKE NOTICE!

**BEFORE** placing your orders for SUPPLIES, write for prices on 1-Piece Basswood Sections, Bee-Hives, Shipping-Crates, Frames, Foundation, Smokers, etc.

**PAGE & LYON MFG. CO.**

NEW LONDON, WIS.

## MILLIONS OF DOLLARS

**SAVED** ANNUALLY by **FRUIT GROWERS** using **Deming SPRAYING Outfits**. Recommended by leading Horticulturists. Send for illustrated catalogue and treatise FREE. **The Deming Co., Mfgs., Salem, Ohio.** **Henion & Hubbell, Gen'l West. Ag'ts, Chicago.**

Mention the American Bee Journal.

## 1896 SAVE MONEY 1896

If you want first-class **ITALIAN QUEENS** **FOR BUSINESS**, **Foundation** at Wholesale Prices, **Hives**, suited for the South, or **SUPPLIES**, send for Price-List—to

**J. P. H. BROWN, AUGUSTA, GA.**

until late—did not get any swarms until the last of June.

In May I ordered one colony and a half from another bee-keeper, making three and one-half colonies that I really started the season with. From the time they commenced to swarm they did quite well. I let them swarm naturally, and at the end of the season I had taken 325 pounds of surplus comb honey, and had increased to 17 colonies. One colony which lost its queen, and one late swarm, both went into the cellar rather weak, but the rest were in good condition. I should have tried to build up the weak ones, but I had so much else to do in the fall that I could not see to it.

My bee-cellar is built by first digging in the ground about 4 feet, then a wall of logs hewn on the inside is built inside of the excavation to the height of 6 feet, and over this is a tight board roof,  $\frac{1}{2}$  pitch. Outside of this wall, at the distance of 3 feet, is another wall of round logs, built up from the surface of the ground to the level of the inner wall. Over this is a good shingle roof, with space between roofs of 2 feet, which is packed solid with damp marsh-moss, which, when dried, is like a sponge—swells and fills everything snug. There are two doors in front, one opening out, and the other one inside, with the space between of 3 feet of dead air. In the roof there is one 6-inch ventilator, which can be closed entirely if needed. I can stow away 100 colonies very easily, and last winter the temperature only varied 6 degrees all winter, with only two colonies, and so far this winter there has been a fall of 2 degrees. We have winters here where the thermometer registers between 40 and 60 degrees below zero, and I think something similar to such a cellar as I have for wintering is a necessity.

If my bees don't all die this winter, I may write again how they come from cellar. I have been using the 8-frame dovetail hive, but I may change to the 10-frame next season, although I am quite satisfied with results so far from the 8-frame hive.

Nimrod, Minn.

E. B. GILMORE.



## SEEDS

## SPECIAL OFFER

Made to Build New Business. A trial will make you our permanent customer.

A Vegetable Garden for the cost of Postage

(Premium Collection)—Radish, 10 varieties; Lettuce, 9 kinds; Tomatoes, 7 finest; Turnips, 5 splendid; and Onions, 6 best varieties.

**SEND TEN CENTS** to cover postage and packing and receive this valuable collection of seeds postpaid.

R. W. Laughlin, Ada, O. writes: "Have planted Buckbee's Seeds for years, with the best of success. It is a grand business to handle such a good grade of seeds."

Write to-day and receive my new Seed and Plant Book; the best published. I guarantee to please.

**H. W. BUCKBEE, Rockford Seed Farms, Box 537 ROCKFORD, ILL.**

WHEN ANSWERING THIS ADVERTISEMENT, MENTION THIS JOURNAL.

## MUTH'S HONEY EXTRACTOR

PERFECTION

Cold-Blast Smokers.

Square Glass Honey Jars, Etc.

For Circulars, apply to **CHAS. F. MUTH & SON,**

Cor. Freeman & Central Aves., Cincinnati, O.

Send 10c for Practical Hints to Bee-Keepers.

**The Coil Spring Hustler.**—We

have just received the January issue of The Coil Spring Hustler, and find it full of interesting matter pertaining to fencing.

If any of our readers are not receiving that paper, a copy will be mailed them gratuitously by addressing the Page Fence Co.,

Adrian, Mich.





## Bottom Prices

**BRING US BIG TRADE.  
GOOD GOODS KEEP IT.**

If you want the best supplies that can be made at a little less cost than you can buy the same goods for elsewhere, write to us for low prices. 1896 Catalogue now ready—ask for it and a free copy of **The American Bee-Keeper** (36 pages).

Address,  
**THE W. T. FALCONER MFG. CO.,**  
**JAMESTOWN, N. Y.**  
Mention the American Bee Journal.

**EVERGREENS!**  
and Ornamental trees, Nursery grown.  
250 Choice Evergreens, 10 varieties \$2.  
400 Ornamental trees, 6 varieties, \$2; 6  
other \$5 and \$10 bargains, 100 Scotch  
Pine, 2 ft. high, \$5; 1,000 10 to 12 inches  
\$10. All other varieties and sizes  
cheap. Local Agents Wanted. Send  
for Illustrated Catalogue. **FREE.**  
**D. HILL, Evergreen Specialist,**  
**DUNDEE, ILLINOIS.**

7A5t Please mention the Bee Journal.

### HEADQUARTERS for ROOTS' GOODS

Can supply you with all the Fixtures used in an Apiary. Best Goods at Lowest Prices. Catalogue free. 5% discount until March 1st.  
**JNO. NEBEL & SON, High Hill, Mo.**  
Mention the American Bee Journal. 4Atf

### The Rural Kansan

Is an Agricultural Journal for the busy farmer. It embraces Bee-Keeping and every department of industry connected with the farm. 30 cts. a year, monthly. Sample Free.  
A Full Line of **Higginsville Bee-Supplies** on hand.  
CATALOGUE FREE.  
**HENRY L. MILLER,**  
355 Shawnee Ave., TOPEKA, KAN.  
1A13t Mention the American Bee Journal.

### FOR SALE.

**ALSIKE, CRIMSON, ITALIAN, ALFALFA,**  
or **WHITE CLOVER SEED.**  
4A8t **WM. CRAIG, Luce, Mich.**  
Mention the American Bee Journal.

### Queen-Clipping Device.

I want the address of all who clip Queens and have even the least trouble either in catching or holding them while they are being clipped. I have invented a Device by which it is impossible to injure a Queen either in catching or clipping, unless it is done purposely. With it they are caught and clipped any way desired almost instantly. One does not have to touch the Queen with his hands, whatever. Price, postpaid, 50 cts. Send for Free Circular.  
**C. MONETTE,**  
6Atf **CHATFIELD, Fillmore Co., MINN.**  
Mention the American Bee Journal.

**BEES QUEENS**  
Smokers, Sections,  
Comb Foundation,  
And all Apian Supplies  
cheap. Send for  
FREE catalogue.  
**E. T. FLANAGAN, Belleville, Ill.**  
6A26t Please mention the Bee Journal.

### Fruit Plants

Where to buy them at wholesale price. Send postal for descriptive and  
wholesale Catalogue of all of the leading varieties of the **Strawberries, Raspberries, Blackberries, Currants, Gooseberries, Grapes and Potatoes.**  
**EZRA G. SMITH, Manchester, Ont. Co., N. Y.**  
8Atf Please mention the Bee Journal.

## 19th Year Dadant's Foundation 19th Year

Is still in the lead, for we use all the latest improvements, including the NEW PROCESS, and still make the best goods. Remember that we do not use any acid to purify our beeswax, and that is why our Foundation preserves the smell of the honey and is more acceptable to the bees, than any other. It is kept for sale by

G. K. Hubbard, Fort Wayne, Ind.  
L. Hansen, Davenport, Iowa.  
C. Theilmann, Theilmanton, Minn.  
E. C. Eaglesfield, Berlin, Wis.  
E. T. Abbott, St. Joseph, Mo.  
J. M. Jenkins, Wetumpka, Alabama  
John Key, East Saginaw, Mich.  
Vickery Bros., Evansville, Ind.

The Jennie Atchley Company, Beeville, Texas.  
C. F. Muth & Son, Cincinnati, Ohio.  
E. Kretschmer, Red Oak, Iowa.  
Jos. Nysewander, Des Moines, Iowa.  
G. B. Lewis Co., Watertown, Wis.  
James Reynolds Elevator Co., Poughkeepsie, N. Y.  
Page & Lyon, New London, Wis.  
T. H. Strickler, Solomon City, Kansas.

and many other Dealers. All agree in saying that no goods are better than ours.

Those of our customers who formerly bought through Thos. G. Newman can get our Foundation in **Chicago, Ill.**, by addressing us at **56 Fifth Avenue**. We keep no other goods there.

We make a specialty of **Veils and Veil Stuffs** of best quality, cotton and silk.

## Langstroth on the Honey-Bee, Revised.

Bee-Keepers' Supplies, Smokers, Sections, Tin Pails, etc.

**Samples of Foundation and Tulle FREE** with Circular. Instructions to beginners with Circular. **BEE SWAX WANTED.** Send us your address.

**CHAS. DADANT & SON,**

Mention the American Bee Journal.

**HAMILTON, Hancock Co., ILL.**

## CASH PAID FOR BEESWAX

For all the **good, pure yellow BEESWAX** delivered to our office till further notice, we will pay 26 cents per pound, cash; or 30 cents for whatever part is exchanged for the Bee Journal, Honey, Books or Seed, that we offer. If you want **cash promptly** for wax, send it on at once. Dark or impure wax not taken at any price. Address plainly,

**George W. York & Co., 56 Fifth Ave., Chicago, Ill.**

## SECTIONS, BEE-HIVES, SHIPPING-CASES

We make a Specialty of these Goods, and defy Competition in

**QUALITY, WORKMANSHIP AND PRICES.**

Write for Free Illustrated Catalogue and Price-List.

**G. B. LEWIS COMPANY, Watertown, Wis.**

Be sure to mention the American Bee Journal when you write.

## \* ROOT'S COMB FOUNDATION! \*

New Product.

New Process.

A Big Success

We are pleased to announce that, having secured control of the new Weed process of manufacturing foundation for the U. S., we are prepared to furnish **Foundation by the New Process**, for 1896. Samples will be mailed free on application, and will speak for themselves.

**OUR SANDED and POLISHED SECTIONS**, well, they will speak for themselves, also.

### Our 1896 Catalog

will be ready for distribution now in a few days. Send in your name at once for catalog, samples of the new foundation, and those superb sections, and while you are about it ask for late copy of **Gleanings in Bee-Culture**.

**THE A. I. ROOT CO., MEDINA, OHIO.**

**56 5th Ave., Chicago, Ill.**

**Syracuse, N. Y.**

**1024 Mississippi St., St. Paul, Minn.**